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FILE 'MEDLINE' ENTERED AT 11:08:30 ON 01 DEC 2003

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=> s conjugate and mastocyte binding  
L1 1 CONJUGATE AND MASTOCYTE BINDING

=> d l1 ti abs ibib tot

L1 ANSWER 1 OF 1 USPATFULL on STN  
TI Hybrid protein for inhibiting the degranulation of mastocytes and the use thereof  
AB A hybrid protein contains a protein that binds to a receptor of mastocytes and basophils and is endocyted by them. The protein can be IgE; IgE fragment; IgE Fc fragment; antibody against IgE receptor of mastocytes and basophils; fragment of the antibody against the IgE receptor of mastocytes and basophils; antibody against mastocyte specific potassium channel; and mast cell degranulating peptide. The hybrid protein also contains a protease cleaving proteins of the secretion process of the mastocytes and basophils so as to inhibit the secretion process without killing the mastocytes and basophils. The protease can be light chain Clostridium botulinum toxin; proteolytically active fragment of the light chain of a Clostridium botulinum toxin containing an amino acid sequence His-Xaa-Xaa-Xaa-His-Xaa-Xaa-His wherein Xaa is an amino acid; light chain of the tetanus toxin; proteolytically active fragment of the light chain of the tetanus toxin containing His-Asp-Leu-Ile-His-Val-Leu-His; IgA protease of Neisseria gonorrhoeae; and proteolytic domain of the IgA protease of Neisseria gonorrhoeae.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2003:86306 USPATFULL  
TITLE: Hybrid protein for inhibiting the degranulation of mastocytes and the use thereof  
INVENTOR(S): Bigalke, Hans, Hannover, GERMANY, FEDERAL REPUBLIC OF Frevert, Jurgen, Berlin, GERMANY, FEDERAL REPUBLIC OF  
PATENT ASSIGNEE(S): BioteCon Gesellschaft fur biotechnologische Entwicklung und consulting mbH, Berlin, DE, 10589 (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003059912	A1	20030327
APPLICATION INFO.:	US 2002-64903	A1	20020827 (10)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 2001-700540, filed on 19 Jan 2001, PENDING A 371 of International Ser. No. WO 1999-EP3272, filed on 12 May 1999, UNKNOWN		

NUMBER	DATE
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PRIORITY INFORMATION:  DE 1998-19821285    19980513
DOCUMENT TYPE:         Utility
FILE SEGMENT:         APPLICATION
LEGAL REPRESENTATIVE:  GUDRUN E. HUCKETT, LONSSTR. 53, WUPPERTAL, 42289
NUMBER OF CLAIMS:      11
EXEMPLARY CLAIM:       1
LINE COUNT:           576
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

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=> d his

(FILE 'HOME' ENTERED AT 11:08:04 ON 01 DEC 2003)

FILE 'MEDLINE, USPATFULL, DGENE, EMBASE, WPIDS, BIOSIS, BIOBUSINESS'  
ENTERED AT 11:08:30 ON 01 DEC 2003

L1 1 S CONJUGATE AND MASTOCYTE BINDING

=> s hybrid protein or conjugate

L2 171149 HYBRID PROTEIN OR CONJUGATE

=> s IgE and IgA protease

L3 21 IGE AND IGA PROTEASE

=> s IgE and tetanus

L4 1711 IGE AND TETANUS

=> s l2 and l3

L5 7 L2 AND L3

=> d l5 ti abs ibibi tot

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in at least one of the files. Refer to file specific help messages  
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=> d l5 ti abs ibib tot

L5 ANSWER 1 OF 7 USPATFULL on STN

TI **Hybrid protein** for inhibiting the degranulation of  
mastocytes and the use thereof

AB A **hybrid protein** contains a protein that binds to a  
receptor of mastocytes and basophils and is endocyted by them. The  
protein can be **IgE**; **IgE** fragment; **IgE** Fc  
fragment; antibody against **IgE** receptor of mastocytes and  
basophils; fragment of the antibody against the **IgE** receptor  
of mastocytes and basophils; antibody against mastocyte specific  
potassium channel; and mast cell degranulating peptide. The  
**hybrid protein** also contains a protease cleaving  
proteins of the secretion process of the mastocytes and basophils so as  
to inhibit the secretion process without killing the mastocytes and  
basophils. The protease can be light chain Clostridium botulinum toxin;  
proteolytically active fragment of the light chain of a Clostridium  
botulinum toxin containing an amino acid sequence His-Xaa-Xaa-Xaa-His-  
Xaa-Xaa-His wherein Xaa is an amino acid; light chain of the tetanus  
toxin; proteolytically active fragment of the light chain of the tetanus  
toxin containing His-Asp-Leu-Ile-His-Val-Leu-His; **IgA**  
**protease** of Neisseria gonorrhoeae; and proteolytic domain of the  
**IgA protease** of Neisseria gonorrhoeae.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2003:86306 USPATFULL  
 TITLE: **Hybrid protein** for inhibiting the  
 degranulation of mastocytes and the use thereof  
 INVENTOR(S): Bigalke, Hans, Hannover, GERMANY, FEDERAL REPUBLIC OF  
 Frevert, Jorgen, Berlin, GERMANY, FEDERAL REPUBLIC OF  
 PATENT ASSIGNEE(S): BioteCon Gesellschaft fur biotechnologische Entwicklung  
 und consulting mbH, Berlin, DE, 10589 (non-U.S.  
 corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003059912	A1	20030327
APPLICATION INFO.:	US 2002-64903	A1	20020827 (10)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 2001-700540, filed on 19 Jan 2001, PENDING A 371 of International Ser. No. WO 1999-EP3272, filed on 12 May 1999, UNKNOWN		

	NUMBER	DATE
PRIORITY INFORMATION:	DE 1998-19821285	19980513
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	GUDRUN E. HUCKETT, LONSSTR. 53, WUPPERTAL, 42289	
NUMBER OF CLAIMS:	11	
EXEMPLARY CLAIM:	1	
LINE COUNT:	576	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 2 OF 7 USPATFULL on STN  
 TI Directed evolution of enzymes and antibodies  
 AB The invention relates to methods of selecting proteins, out of large  
 libraries, having desirable characteristics. Exemplified are methods of  
 expressing enzymes and antibodies on the surface of host cells and  
 selecting for desired activities. These methods have the advantage of  
 speed and ease of operation when compared with current methods. They  
 also provide, without additional cloning, a source of significant  
 quantities of the protein of interest.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2003:51135 USPATFULL  
 TITLE: Directed evolution of enzymes and antibodies  
 INVENTOR(S): Iverson, Brent, Austin, TX, UNITED STATES  
 Georgiou, George, Austin, TX, UNITED STATES  
 Chen, Gang, Austin, TX, UNITED STATES  
 Olsen, Mark J., Austin, TX, UNITED STATES  
 Daugherty, Patrick S., Austin, TX, UNITED STATES  
 PATENT ASSIGNEE(S): Board of Regents, The University of Texas System (U.S.  
 corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003036092	A1	20030220
APPLICATION INFO.:	US 2001-782672	A1	20010212 (9)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1997-847063, filed on 1 May 1997, ABANDONED Continuation-in-part of Ser. No. US 1995-447402, filed on 23 May 1995, GRANTED, Pat. No. US 5866344 Continuation-in-part of Ser. No. US 1994-258543, filed on 10 Jun 1994, ABANDONED Division of Ser. No. US 1991-794731, filed on 15 Nov 1991, GRANTED, Pat. No. US 5348867		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	Steven L. Highlander, Esq., FULBRIGHT & JAWORSKI L.L.P., Suite 2400, 600 Congress Avenue, Austin, TX,		

78701  
NUMBER OF CLAIMS: 45  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 13 Drawing Page(s)  
LINE COUNT: 3955  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 3 OF 7 USPATFULL on STN

TI Methods for producing members of specific binding pairs  
AB Methods, recombinant host cells and kits are disclosed-for the production of members of specific binding pairs (sbp), e.g. antibodies, using display on the surface of secreted replicable genetic display packages (rgdps), e.g. filamentous phage. To produce a library of great diversity recombination occurs between first and second vectors comprising nucleic acid encoding first and second polypeptide chains of sbp members respectively, thereby producing recombinant vectors each encoding both a first and a second polypeptide chain component of a sbp member. The recombination may take place in vitro or intracellularly and may be site-specific, e.g. involving use of the loxP sequence and mutants thereof. Recombination may take place after prior screening or selecting for rgdps displaying sbp members which bind complementary sbp member of interest.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2002:325868 USPATFULL  
TITLE: Methods for producing members of specific binding pairs  
INVENTOR(S): Griffiths, Andrew David, Cambridge, UNITED KINGDOM  
Williams, Samuel Cameron, Cambridge, UNITED KINGDOM  
Waterhouse, Peter Michael, Canberra, AUSTRALIA  
Nissim, Ahuva, Cambridge, UNITED KINGDOM  
Winter, Gregory Paul, Cambridge, UNITED KINGDOM  
Johnson, Kevin Stuart, Cambridgeshire, UNITED KINGDOM  
Smith, Andrew John Hammond, Cambridge, UNITED KINGDOM  
PATENT ASSIGNEE(S): Cambridge Antibody Technology Limited, Cambridgeshire, UNITED KINGDOM (non-U.S. corporation)  
Medical Research Council, London, UNITED KINGDOM (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6492160	B1	20021210
APPLICATION INFO.:	US 1998-104337		19980625 (9)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1994-350260, filed on 5 Dec 1994, now patented, Pat. No. US 5962255 Continuation-in-part of Ser. No. US 307619, now patented, Pat. No. US 5733743 Continuation-in-part of Ser. No. US 150002, now patented, Pat. No. US 5871907		

	NUMBER	DATE
PRIORITY INFORMATION:	GB 1991-10549	19910515
	GB 1992-6318	19920324
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Ketter, James	
LEGAL REPRESENTATIVE:	Marshall, Gerstein & Borun.	
NUMBER OF CLAIMS:	36	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	42 Drawing Figure(s); 34 Drawing Page(s)	
LINE COUNT:	6137	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 4 OF 7 USPATFULL on STN

TI Compositions and methods for the diagnosis, treatment and prevention of



steroid hormone responsive cancers  
AB Compositions and methods that use the body's natural secretory immune system in a new way against steroid hormone responsive tumors of the breast and prostate, as well as other glandular/mucus epithelial tissues such as colon, ovary, endometrium, kidney, bladder, stomach, pancreas and secretory pituitary gland are provided. Also provided are new ways of identifying carcinogenic, or potentially carcinogenic, bacteria in a tissue or body fluid to provide better anti-cancer therapies and preventatives than have been available previously.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2002:12251 USPATFULL  
TITLE: Compositions and methods for the diagnosis, treatment and prevention of steroid hormone responsive cancers  
INVENTOR(S): Sirbasku, David A., Houston, TX, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002006630	A1	20020117
APPLICATION INFO.:	US 2001-852547	A1	20010510 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2000-203314P	20000510 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	CONLEY ROSE & TAYON, P.C., P. O. BOX 3267, HOUSTON, TX, 77253-3267	
NUMBER OF CLAIMS:	65	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	133 Drawing Page(s)	
LINE COUNT:	10394	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 5 OF 7 USPATFULL on STN

TI Recombinant human IGA-J. chain dimer

AB Disclosed are compositions and methods of use that comprise engineered IgA antibodies that, when administered to a host are secreted across the epithelium into the mucosal barriers of the body providing external passive immunotherapy against agents such as viral, bacterial and eukaryotic pathogens. Also disclosed are mini antibodies comprising the minimal transcytosis domains.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2000:61721 USPATFULL  
TITLE: Recombinant human IGA-J. chain dimer  
INVENTOR(S): Capra, J. Donald, Dallas, TX, United States  
Hexham, Jonathan M., Dallas, TX, United States  
Carayannopoulos, Leon N., St Louis, MO, United States  
Max, Edward E., Bethesda, MD, United States  
PATENT ASSIGNEE(S): Board of Regents, The University of Texas System, Austin, TX, United States (U.S. corporation)  
The United States of America as represented by the Department of Health and Human Services, Washington, DC, United States (U.S. government)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6063905		20000516
APPLICATION INFO.:	US 1997-779597		19970107 (8)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Eyler, Yvonne		
LEGAL REPRESENTATIVE:	Arnold, White & Durkee		

NUMBER OF CLAIMS: 102  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 7 Drawing Figure(s); 5 Drawing Page(s)  
LINE COUNT: 2003  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 6 OF 7 USPATFULL on STN

TI Methods for producing recombinant vectors

AB Methods, recombinant host cells and kits are disclosed for the production of members of specific binding pairs (sbp), e.g. antibodies, using display on the surface of secreted replicable genetic display packages (rgdps), e.g. filamentous phage. To produce a library of great diversity recombination occurs between first and second vectors comprising nucleic acid encoding first and second polypeptide chains of sbp members respectively, thereby producing recombinant vectors each encoding both a first and a second polypeptide chain component of a sbp member. The recombination may take place in vitro or intracellularly and may be site-specific, e.g. involving use of the loxP sequence and mutants thereof. Recombination may take place after prior screening or selecting for rgdps displaying sbp members which bind complementary sbp member of interest.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 1999:121158 USPATFULL

TITLE: Methods for producing recombinant vectors

INVENTOR(S): Griffiths, Andrew David, Cambridge, United Kingdom  
Williams, Samuel Cameron, Cambridge, United Kingdom  
Waterhouse, Peter Michael, Canberra, Australia  
Nissim, Ahuva, Cambridge, United Kingdom  
Winter, Gregory Paul, Cambridge, United Kingdom  
Johnson, Kevin Stuart, Cambridgeshire, United Kingdom  
Smith, Andrew John Hammond, Cambridge, United Kingdom  
PATENT ASSIGNEE(S): Cambridge Antibody Technology Limited, Cambridgeshire, United Kingdom (non-U.S. corporation)  
Medical Research Council, London, United Kingdom (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5962255		19991005
APPLICATION INFO.:	US 1994-350260		19941205 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1994-307619, filed on 16 Sep 1994 which is a continuation-in-part of Ser. No. US 1994-150002, filed on 31 Mar 1994		

	NUMBER	DATE
PRIORITY INFORMATION:	GB 1992-6318	19920324
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Ketter, James	
ASSISTANT EXAMINER:	Wai, Thanda	
LEGAL REPRESENTATIVE:	Marshall, O'Toole, Gerstein, Murray & Borun	
NUMBER OF CLAIMS:	41	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	42 Drawing Figure(s); 34 Drawing Page(s)	
LINE COUNT:	7715	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 7 OF 7 WPIDS COPYRIGHT 2003 THOMSON DERWENT on STN

TI New **hybrid protein** useful for inhibiting mast cell degranulation and treating allergic reactions.

AN 2000-072332 [06] WPIDS

AB WO 9958571 A UPAB: 20000203

NOVELTY - A protein which binds to, or is absorbed by, mast cells or basophils is combined with a known protease (which cleaves proteins of the secretory apparatus of such cells) in a **hybrid protein** which is useful for inhibiting mast cell degranulation and treating allergic reactions.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for: (A) **hybrid protein** comprising: (a) a known protein which binds to (or is absorbed by) mast cells and/or basophils, in a known manner; and (b) a known protease which cleaves one or more proteins of the secretory apparatus of the mast cells or basophils. (B) **hybrid protein** comprising: (a) a protein which binds to (or is absorbed by) mast cells or basophils; and (b) a protease (especially a known protease) which cleaves one or more proteins of the secretory apparatus of the mast cells or basophils. Component (a) is selected from (i) **IgE**, (ii) **IgE** fragments (especially an **IgE**-Fc fragment), (iii) antibodies against **IgE** receptors of mast cells and/or basophils, (iv) fragments of antibodies against **IgE** receptors of mast cells and/or basophils (especially an Fab fragment), (v) antibodies against the mast cell-specific potassium channel, and (vi) inactive (though binding) MCD peptide. (C) **hybrid protein** comprising: (a) a protein (especially a known protein) which binds to (or is absorbed by) mast cells and/or basophils; and (b) a protease which cleaves one or more proteins of the secretion apparatus of the mast cells or basophils. The protease is selected from (i) the light chain of a Clostridium botulinum toxin (especially type A, B, Cl, D, E, F or G), (ii) the light chain of Tetanus toxin, (iii) catalytically active fragments of the light chains described in (i) or (ii), (iv) **IgA protease** from Neisseria gonorrhea or (v) catalytic domains of **IgA protease** from Neisseria gonorrhea.

ACTIVITY - Antiallergic.

USE - The hybrid proteins inhibit mast cell degranulation, and may be used in treatment or prevention of allergic reactions.

Dwg.0/0

ACCESSION NUMBER: 2000-072332 [06] WPIDS  
DOC. NO. CPI: C2000-020614  
TITLE: New **hybrid protein** useful for inhibiting mast cell degranulation and treating allergic reactions.  
DERWENT CLASS: B04 D16 J04  
INVENTOR(S): BIGALKE, H; FREVERT, J  
PATENT ASSIGNEE(S): (BIOT-N) BIOTECON-GES BIOTECHNOLOGISCHE; (BIET-N) BIETECON GES BIOTECHNOLOGISCHE ENTWICKLU; (BIOT-N) BIOTECON-GES BIOTECHNOLOGISCHE ENTWICKLU  
COUNTRY COUNT: 87  
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
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AU 9942605	A	19991129	(200018)		
BR 9910359	A	20010109	(200106)		
NO 2000005637	A	20001108	(200108)		
EP 1084146	A2	20010321	(200117)	GE	
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CZ 2000004161	A3	20010411	(200130)		
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HU 2001003601	A2	20020128	(200222)		



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 AU 755513 B 20021212 (200305)  
 US 2003059912 A1 20030327 (200325)  
 ES 2187200 T3 20030516 (200337)

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
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BR 9910359	A	BR 1999-10359	19990512
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		NO 2000-5637	20001108
EP 1084146	A2	EP 1999-950347	19990512
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		HU 2001-3601	19990512
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		JP 2000-548373	19990512
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		WO 1999-EP3272	19990512
DE 59903410	G	DE 1999-503410	19990512
		EP 1999-950347	19990512
		WO 1999-EP3272	19990512
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		US 2001-700540	20010119
		US 2002-64903	20020827
ES 2187200	T3	EP 1999-950347	19990512

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 9942605	A Based on	WO 9958571
BR 9910359	A Based on	WO 9958571
EP 1084146	A2 Based on	WO 9958571
CZ 2000004161	A3 Based on	WO 9958571
HU 2001003601	A2 Based on	WO 9958571
JP 2002514659	W Based on	WO 9958571
EP 1084146	B1 Based on	WO 9958571
DE 59903410	G Based on	EP 1084146
	Based on	WO 9958571
AU 755513	B Previous Publ.	AU 9942605
	Based on	WO 9958571
ES 2187200	T3 Based on	EP 1084146

PRIORITY APPLN. INFO: DE 1998-19821285 19980513

=> d his

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FILE 'MEDLINE, USPATFULL, DGENE, EMBASE, WPIDS, BIOSIS, BIOBUSINESS'

ENTERED AT 11:08:30 ON 01 DEC 2003

L1 1 S CONJUGATE AND MASTOCYTE BINDING  
L2 171149 S HYBRID PROTEIN OR CONJUGATE  
L3 21 S IGE AND IGA PROTEASE  
L4 1711 S IGE AND TETANUS  
L5 7 S L2 AND L3

=> s l4 and mastocyte inactivation  
L6 0 L4 AND MASTOCYTE INACTIVATION

=> s l4 and degranulation inhibition  
L7 0 L4 AND DEGRANULATION INHIBITION

=> s mast cell degranulation and inhibition  
L8 1322 MAST CELL DEGRANULATION AND INHIBITION

=> s allergy and treatement  
L9 38 ALLERGY AND TREATMENT

=> s l9 and l8  
L10 0 L9 AND L8

=> s l8 and allergic response  
L11 107 L8 AND ALLERGIC RESPONSE

=> s l11 and IgE  
L12 88 L11 AND IGE

=> s l12 and tetanus toxin  
L13 2 L12 AND TETANUS TOXIN

=> d l13 ti abs ibib tot

L13 ANSWER 1 OF 2 USPATFULL on STN  
TI Bi-directionally cloned random cDNA expression vector libraries,  
compositions and methods of use  
AB The present invention provides random cDNA expression vector libraries,  
comprising expression vectors which comprise random cDNAs positioned in  
sense and antisense orientation, which are useful for the delivery and  
expression of a combination of genetic effector types to host cells.  
Methods for producing these libraries through bi-directional cloning of  
random cDNAs are also provided. Also provided herein are methods of  
using these libraries to screen for agents capable of modulating cell  
phenotype in desirable ways.

ACCESSION NUMBER: 2003:300312 USPATFULL  
TITLE: Bi-directionally cloned random cDNA expression vector  
libraries, compositions and methods of use  
INVENTOR(S): Lorens, James, Portola Valley, CA, UNITED STATES  
Bogenberger, Jakob M., San Francisco, CA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003211535	A1	20031113
APPLICATION INFO.:	US 2002-142648	A1	20020508 (10)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	BOZICEVIC, FIELD & FRANCIS LLP, 200 MIDDLEFIELD RD, SUITE 200, MENLO PARK, CA, 94025		
NUMBER OF CLAIMS:	20		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	5 Drawing Page(s)		
LINE COUNT:	3910		

L13 ANSWER 2 OF 2 USPATFULL on STN  
 TI Directionally cloned random cDNA expression vector libraries, compositions and methods of use  
 AB The present invention provides random cDNA expression vector libraries, comprising expression vectors which comprise random cDNAs positioned in sense orientation. Also provided are random cDNA expression vector libraries, comprising expression vectors which comprise random cDNAs positioned in antisense orientation. Methods for producing these libraries through directional cloning of random cDNAs are also provided. Also provided herein are methods of using these libraries to screen for agents capable of modulating cell phenotype in desirable ways.

ACCESSION NUMBER: 2003:300239 USPATFULL  
 TITLE: Directionally cloned random cDNA expression vector libraries, compositions and methods of use  
 INVENTOR(S): Shen, Mary, Newark, CA, UNITED STATES  
 Yu, Simon, Newark, CA, UNITED STATES  
 Wu, Xian, Redwood City, CA, UNITED STATES  
 Payan, Donald, Hillsborough, CA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003211462	A1	20031113
APPLICATION INFO.:	US 2002-142662	A1	20020508 (10)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	BOZICEVIC, FIELD & FRANCIS LLP, 200 MIDDLEFIELD RD, SUITE 200, MENLO PARK, CA, 94025		
NUMBER OF CLAIMS:	26		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	4 Drawing Page(s)		
LINE COUNT:	3873		

=> d his

(FILE 'HOME' ENTERED AT 11:08:04 ON 01 DEC 2003)

FILE 'MEDLINE, USPATFULL, DGENE, EMBASE, WPIDS, BIOSIS, BIOBUSINESS'  
 ENTERED AT 11:08:30 ON 01 DEC 2003

L1 1 S CONJUGATE AND MASTOCYTE BINDING  
 L2 171149 S HYBRID PROTEIN OR CONJUGATE  
 L3 21 S IGE AND IGA PROTEASE  
 L4 1711 S IGE AND TETANUS  
 L5 7 S L2 AND L3  
 L6 0 S L4 AND MASTOCYTE INACTIVATION  
 L7 0 S L4 AND DEGRANULATION INHIBITION  
 L8 1322 S MAST CELL DEGRANULATION AND INHIBITION  
 L9 38 S ALLERGY AND TREATMENT  
 L10 0 S L9 AND L8  
 L11 107 S L8 AND ALLERGIC RESPONSE  
 L12 88 S L11 AND IGE  
 L13 2 S L12 AND TETANUS TOXIN

=> d l12 ti abs ibib 1-10

L12 ANSWER 1 OF 88 MEDLINE on STN  
 TI Shini-san inhibits mast cell-dependent immediate-type allergic reactions.  
 AB Shini-San has been used for treatment of allergic disease in Korea. However, its effect in experimental models remains unknown. The mast cell plays a pivotal role in initiating **allergic response** by secreting intracytoplasmic granular mediators such as histamine. The present report describes an inhibitory effect of Shini-San on mast cell-mediated immediate-type allergic reactions. Topical application of

compound 48/80 can induce an ear swelling response in normal (WBB6F1(-)/+) mice but not in congenic mast cell-deficient WBB6F1-W/WV mice. Shini-San inhibited concentration-dependent mast cell-dependent ear swelling response induced by compound 48/80 in normal mice. Shini-San inhibited concentration-dependent passive cutaneous anaphylaxis induced by anti-dinitrophenyl (DNP) immunoglobulin E (**IgE**) in rats by topical application. Shini-San also inhibited in concentration-dependent fashion the histamine release from the rat peritoneal mast cells by compound 48/80 or anti-DNP **IgE**. Moreover, Shini-San had a significant inhibitory effect on compound 48/80-induced systemic anaphylactic reaction. These results indicate that Shini-San inhibits immediate type allergic reactions by **inhibition of mast cell degranulation** in vivo and in vitro.

ACCESSION NUMBER: 2000060432 MEDLINE  
 DOCUMENT NUMBER: 20060432 PubMed ID: 10592847  
 TITLE: Shini-san inhibits mast cell-dependent immediate-type allergic reactions.  
 AUTHOR: Kim H M; Lee Y H; Chae H J; Kim H R; Baek S H; Lim K S; Hwang C Y  
 CORPORATE SOURCE: Department of Oriental Pharmacy, College of Pharmacy, Wonkwang University, Iksan, Chonbuk, South Korea.  
 SOURCE: AMERICAN JOURNAL OF CHINESE MEDICINE, (1999) 27 (3-4) 377-86.  
 Journal code: 7901431. ISSN: 0192-415X.  
 PUB. COUNTRY: United States  
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals  
 ENTRY MONTH: 200002  
 ENTRY DATE: Entered STN: 20000209  
 Last Updated on STN: 20000209  
 Entered Medline: 20000203

L12 ANSWER 2 OF 88 MEDLINE on STN

TI Magnoliae flos inhibits mast cell-dependent immediate-type allergic reactions.

AB The mast cell plays a pivotal role in initiating **allergic response** by secreting intracytoplasmic granular mediators such as histamine. Magnoliae flos has been used for the treatment of allergic disease in Korea. However, its effect in experimental models remains unknown. The present report describes an inhibitory effect of Magnoliae flos on mast cell-mediated immediate-type allergic reactions. Topical application of compound 48/80 can induce an ear swelling response in normal (WBB6F1-+/+) mice but not in the congenic mast cell-deficient WBB6F1-W/Wv mice. Magnoliae flos inhibited concentration-dependently mast cell-dependent ear swelling response induced by compound 48/80 by topical application. Magnoliae flos inhibited concentration-dependently passive cutaneous anaphylaxis induced by anti-dinitrophenyl (DNP) **IgE** in rats by topical application. Magnoliae flos also inhibited concentration-dependently the histamine release from the rat peritoneal mast cells by compound 48/80 or anti-DNP **IgE**. Moreover, Magnoliae flos had a significant inhibitory effect on compound 48/80-induced systemic anaphylactic reaction. These results indicate that Magnoliae flos inhibits immediate-type allergic reactions by **inhibition of mast cell degranulation** in vivo and in vitro.

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ACCESSION NUMBER: 1999174063 MEDLINE  
 DOCUMENT NUMBER: 99174063 PubMed ID: 10072701  
 TITLE: Magnoliae flos inhibits mast cell-dependent immediate-type allergic reactions.  
 AUTHOR: Kim H M; Yi J M; Lim K S  
 CORPORATE SOURCE: College of Pharmacy, Wonkwang University, Iksan, Chonbuk, 570-749, South Korea.

SOURCE: PHARMACOLOGICAL RESEARCH, (1999 Feb) 39 (2) 107-11.  
Journal code: 8907422. ISSN: 1043-6618.  
PUB. COUNTRY: ENGLAND: United Kingdom  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 199904  
ENTRY DATE: Entered STN: 19990511  
Last Updated on STN: 19990511  
Entered Medline: 19990427

L12 ANSWER 3 OF 88 MEDLINE on STN

TI A sensitive colorimetric assay for the release of tryptase from human lung mast cells in vitro.

AB Studies of human lung mast cells have usually focused on histamine release, although the enzymes stored in the granules may also contribute to the pathophysiology of the **allergic response**. We have used a simple colorimetric assay for tryptase to follow the release of proteolytic enzymes from human lung mast cells in vitro. Either human lung mast cell supernatants or authentic mast cell tryptase were mixed with benzoyl-DL-arginine-p-nitroaniline and incubated for up to 72 h at 37 degrees C. The appearance of nitroaniline was then measured at 410 nm in an ELISA plate reader. Cells were sonicated in H2O to measure total tryptase and histamine. Human lung mast cells contained the equivalent of 11.2 +/- 0.7 pg tryptase per cell and 3.2 +/- 0.3 pg of histamine. The amount of tryptase measured colorimetrically correlated with the level of tryptase measured by radioimmunoassay (Pharmacia),  $r = 0.92$ ,  $P < 0.01$ . The **inhibition** profile of the proteolytic enzyme measured by the cleavage of BAPNA, was found to be identical to that of authentic lung mast cell tryptase. Over 90% of the maximum tryptase release was complete within 15 min whilst histamine release occurred within 5 min. In cells stimulated with 10 micrograms/ml anti-IgE we found a strong correlation between the release of tryptase and histamine,  $r = 0.95$ ,  $P < 0.005$ . Finally, investigations with various pharmacological agents have supported our initial hypothesis that tryptase would mimic histamine release and provide an alternative marker for mast cell activation. In summary, we have utilised a simple enzymic assay as an indicator of human lung **mast cell degranulation**. In washed lung mast cells this assay appears to be specific for granule tryptase and release of this activity into the supernatants of challenged cells correlates well with the presence of histamine. This assay offers several advantages over current methods of measuring mediator release from human lung mast cells in vitro and should provide an inexpensive and sensitive technique for following **mast cell degranulation**.

ACCESSION NUMBER: 94044840 MEDLINE  
DOCUMENT NUMBER: 94044840 PubMed ID: 7693824  
TITLE: A sensitive colorimetric assay for the release of tryptase from human lung mast cells in vitro.  
AUTHOR: Lavens S E; Proud D; Warner J A  
CORPORATE SOURCE: Department of Physiology and Pharmacology, University of Southampton, Bassett Crescent East, UK.  
CONTRACT NUMBER: HL 32272 (NHLBI)  
SOURCE: JOURNAL OF IMMUNOLOGICAL METHODS, (1993 Nov 5) 166 (1) 93-102.  
Journal code: 1305440. ISSN: 0022-1759.  
PUB. COUNTRY: Netherlands  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 199312  
ENTRY DATE: Entered STN: 19940117  
Last Updated on STN: 20000303  
Entered Medline: 19931214



L12 ANSWER 4 OF 88 USPATFULL on STN

TI Bi-directionally cloned random cDNA expression vector libraries,  
compositions and methods of use

AB The present invention provides random cDNA expression vector libraries,  
comprising expression vectors which comprise random cDNAs positioned in  
sense and antisense orientation, which are useful for the delivery and  
expression of a combination of genetic effector types to host cells.  
Methods for producing these libraries through bi-directional cloning of  
random cDNAs are also provided. Also provided herein are methods of  
using these libraries to screen for agents capable of modulating cell  
phenotype in desirable ways.

ACCESSION NUMBER: 2003:300312 USPATFULL  
TITLE: Bi-directionally cloned random cDNA expression vector  
libraries, compositions and methods of use  
INVENTOR(S): Lorens, James, Portola Valley, CA, UNITED STATES  
Bogenberger, Jakob M., San Francisco, CA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003211535	A1	20031113
APPLICATION INFO.:	US 2002-142648	A1	20020508 (10)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	BOZICEVIC, FIELD & FRANCIS LLP, 200 MIDDLEFIELD RD, SUITE 200, MENLO PARK, CA, 94025		
NUMBER OF CLAIMS:	20		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	5 Drawing Page(s)		
LINE COUNT:	3910		

L12 ANSWER 5 OF 88 USPATFULL on STN

TI Directionally cloned random cDNA expression vector libraries,  
compositions and methods of use

AB The present invention provides random cDNA expression vector libraries,  
comprising expression vectors which comprise random cDNAs positioned in  
sense orientation. Also provided are random cDNA expression vector  
libraries, comprising expression vectors which comprise random cDNAs  
positioned in antisense orientation. Methods for producing these  
libraries through directional cloning of random cDNAs are also provided.  
Also provided herein are methods of using these libraries to screen for  
agents capable of modulating cell phenotype in desirable ways.

ACCESSION NUMBER: 2003:300239 USPATFULL  
TITLE: Directionally cloned random cDNA expression vector  
libraries, compositions and methods of use  
INVENTOR(S): Shen, Mary, Newark, CA, UNITED STATES  
Yu, Simon, Newark, CA, UNITED STATES  
Wu, Xian, Redwood City, CA, UNITED STATES  
Payan, Donald, Hillsborough, CA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003211462	A1	20031113
APPLICATION INFO.:	US 2002-142662	A1	20020508 (10)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	BOZICEVIC, FIELD & FRANCIS LLP, 200 MIDDLEFIELD RD, SUITE 200, MENLO PARK, CA, 94025		
NUMBER OF CLAIMS:	26		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	4 Drawing Page(s)		
LINE COUNT:	3873		

L12 ANSWER 6 OF 88 USPATFULL on STN

TI IMPROVED HERBAL COMPOSITION HAVING ANTIALLERGIC PROPERTIES AND A PROCESS FOR THE PREPARATION THEREOF

AB The present invention relating to a herbal antiallergic composition which comprises a synergistic mixture of extracts from the fruits of Terminalia chebula, bark of Albizia lebbeck, Terminalia bellerica and Emblica officinalis. The present invention also contains the fruits of Piper longum. Piper nigrum and of rhizomes of Zingiber officinale and thoroughly mixed to get the final composition which has potent antiallergic activity. The invention also relates to a process for the preparation of such composition. The composition is particularly useful for the treatment of allergic conditions.

ACCESSION NUMBER: 2003:276427 USPATFULL

TITLE: IMPROVED HERBAL COMPOSITION HAVING ANTIALLERGIC PROPERTIES AND A PROCESS FOR THE PREPARATION THEREOF

INVENTOR(S): Agarwal, Ravindra Kumar, Bangalore, INDIA  
Agarwal, Anurag, Bangalore, INDIA

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003194452	A1	20031016
APPLICATION INFO.:	US 2001-19389	A1	20011228 (10)
	WO 2001-IN21		20010223

	NUMBER	DATE
PRIORITY INFORMATION:	IN 2000-1582000	20000228
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	MERCHANT & GOULD PC, P.O. BOX 2903, MINNEAPOLIS, MN, 55402-0903	
NUMBER OF CLAIMS:	20	
EXEMPLARY CLAIM:	1	
LINE COUNT:	1446	

L12 ANSWER 7 OF 88 USPATFULL on STN

TI Compounds that modulate processes associated with **IgE** production and methods and kits for identifying and using the same

AB The present provides compounds capable of modulating IL-4 receptor-mediated **IgE** production, as well as IL-4 induced processes associated therewith, methods and kits for identifying such compounds that utilize a retinoid X receptor as a surrogate analyte and methods of using the compounds in a variety of in vitro, in vitro and ex vivo contexts.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2003:244329 USPATFULL

TITLE: Compounds that modulate processes associated with **IgE** production and methods and kits for identifying and using the same

INVENTOR(S): Kinsella, Todd M., Fayetteville, NC, UNITED STATES  
Masuda, Esteban, Menlo Park, CA, UNITED STATES  
Bennett, Mark K., Moraga, CA, UNITED STATES  
Warner, Justin E., San Francisco, CA, UNITED STATES  
Anderson, David C., San Bruno, CA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003170738	A1	20030911
APPLICATION INFO.:	US 2002-98243	A1	20020315 (10)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 2002-95659, filed on 8 Mar 2002, PENDING		

DOCUMENT TYPE: Utility  
FILE SEGMENT: APPLICATION  
LEGAL REPRESENTATIVE: COOLEY GODWARD, LLP, 3000 EL CAMINO REAL, 5 PALO ALTO  
SQUARE, PALO ALTO, CA, 94306  
NUMBER OF CLAIMS: 44  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 14 Drawing Page(s)  
LINE COUNT: 3063  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L12 ANSWER 8 OF 88 USPATFULL on STN

TI Cyclic peptides and analogs useful to treat allergies  
AB The present provides cyclic compounds capable of modulating **IgE**  
production, as well as IL-4 induced processes associated therewith, and  
methods of using the cyclic compounds in a variety of in vitro and in  
vitro contexts.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2003:237981 USPATFULL  
TITLE: Cyclic peptides and analogs useful to treat allergies  
INVENTOR(S): Kinsella, Todd, Fayetteville, NC, UNITED STATES  
Ohashi, Cara, San Francisco, CA, UNITED STATES  
Anderson, Dave, San Bruno, CA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003166138	A1	20030904
APPLICATION INFO.:	US 2002-197927	A1	20020716 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2002-358827P	20020221 (60)

DOCUMENT TYPE: Utility  
FILE SEGMENT: APPLICATION  
LEGAL REPRESENTATIVE: DORSEY & WHITNEY LLP, INTELLECTUAL PROPERTY DEPARTMENT,  
4 EMBARCADERO CENTER, SUITE 3400, SAN FRANCISCO, CA,  
94111  
NUMBER OF CLAIMS: 52  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 15 Drawing Page(s)  
LINE COUNT: 3117  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L12 ANSWER 9 OF 88 USPATFULL on STN

TI Fcepsilon-PE chimeric protein for targeted treatment of allergy  
responses a method for its production and pharmaceutical compositions  
containing the same  
AB The present invention generally relates to a new approach for the therapy  
of allergic responses, based on targeted elimination of cells expressing  
the Fc.epsilon.RI receptor by a chimeric cytotoxin Fc.sub.2'-3-  
PE.sub.40. A sequence encoding amino acids 301-437 of the Fc region of  
the mouse **IgE** molecule was genetically fused to PE.sub.40'--a  
truncated form of PE lacking the cell binding domain. The chimeric  
protein, produced in E. coli, specifically and efficiently kills mouse  
mast cell lines expressing the Fc.epsilon.RI receptor, as well as  
primary mast cells derived from bone marrow. The present invention  
provides a chimeric protein for targeted elimination of Fc.epsilon.RI  
expressing cells especially useful for the therapy of allergic  
responses. The said chimeric protein is comprised of a cell targeting  
moiety for Fc.epsilon.RI expressing cells and a cell killing moiety. The  
preferred killing moiety is the bacterial toxin Pseudomonas exotoxin  
(PE). This Pseudomonas exotoxin is a product of Pseudomonas aeruginosa.  
The present invention also relates to a method for the preparation of  
said protein. This chimeric protein is prepared by genetically fusing

the Fc region of the mouse IgE molecule to PE.sub.40, a truncated form of PE lacking the cell binding domain. The present invention also provides pharmaceutical compositions, for the treatment of allergic diseases and for the treatment of hyperplasias and malignancies, comprising as an active ingredient the above mentioned chimeric protein and a conventional adjuvant product.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2003:226577 USPATFULL  
TITLE: Fcepsilon-PE chimeric protein for targeted treatment of allergy responses a method for its production and pharmaceutical compositions containing the same  
INVENTOR(S): Fishman, Ala, Haifa, ISRAEL  
Yarkoni, Shai, Kfar-Saba, ISRAEL  
Lorberboumgalski, Haya, Jerusalem, ISRAEL  
PATENT ASSIGNEE(S): YISSUM RESEARCH DEVELOPMENT COMPANY OF THE HEBREW UNIVERSITY OF JERUSALEM (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003158390	A1	20030821
APPLICATION INFO.:	US 2002-96840	A1	20020314 (10)
RELATED APPLN. INFO.:	Division of Ser. No. US 1998-91645, filed on 18 Jun 1998, PENDING		

	NUMBER	DATE
PRIORITY INFORMATION:	WO 1996-IL181	19961218
	IL 1995-116436	19951218
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	LOWE HAUPTMAN GILMAN AND BERNER, LLP, 1700 DIAGONAL ROAD, SUITE 300 /310, ALEXANDRIA, VA, 22314	
NUMBER OF CLAIMS:	11	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	17 Drawing Page(s)	
LINE COUNT:	1038	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L12 ANSWER 10 OF 88 USPATFULL on STN

TI HERBAL REMEDIES FOR TREATING ALLERGIES AND ASTHMA  
AB The present invention provides herbal compositions that can prevent or reduce the severity, intensity, or duration of allergic and/or asthmatic symptoms and/or can prevent or delay the development of an allergic or asthmatic response to an antigen. The compositions may optionally include one or more adjuvants, cytokines, encapsulating materials, or pharmaceutical carriers or excipients, and may be administered prior to, during, or after the development of allergic or asthmatic symptoms in sensitized individuals. Alternatively or additionally, the compositions may be administered prior to sensitization to a particular antigen; preferably substantially concurrently with exposure to the antigen.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2003:225315 USPATFULL  
TITLE: HERBAL REMEDIES FOR TREATING ALLERGIES AND ASTHMA  
INVENTOR(S): Li, Xiu-Min, Mamaroneck, NY, UNITED STATES  
Sampson, Hugh A., Larchmont, NY, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003157126	A1	20030821
	US 6630176	B2	20031007
APPLICATION INFO.:	US 2001-800815	A1	20010307 (9)



	NUMBER	DATE
PRIORITY INFORMATION:	US 2000-187614P	20000307 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	DORSEY & WHITNEY LLP, INTELLECTUAL PROPERTY DEPARTMENT, 250 PARK AVENUE, NEW YORK, NY, 10177	
NUMBER OF CLAIMS:	51	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	27 Drawing Page(s)	
LINE COUNT:	2458	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		

=> d his

(FILE 'HOME' ENTERED AT 11:08:04 ON 01 DEC 2003)

FILE 'MEDLINE, USPATFULL, DGENE, EMBASE, WPIDS, BIOSIS, BIOBUSINESS'  
ENTERED AT 11:08:30 ON 01 DEC 2003

L1	1 S CONJUGATE AND MASTOCYTE BINDING
L2	171149 S HYBRID PROTEIN OR CONJUGATE
L3	21 S IGE AND IGA PROTEASE
L4	1711 S IGE AND TETANUS
L5	7 S L2 AND L3
L6	0 S L4 AND MASTOCYTE INACTIVATION
L7	0 S L4 AND DEGRANULATION INHIBITION
L8	1322 S MAST CELL DEGRANULATION AND INHIBITION
L9	38 S ALLERGY AND TREATMENT
L10	0 S L9 AND L8
L11	107 S L8 AND ALLERGIC RESPONSE
L12	88 S L11 AND IGE
L13	2 S L12 AND TETANUS TOXIN

=> s light chain clostridium botulinum toxin

L14 1 LIGHT CHAIN CLOSTRIDIUM BOTULINUM TOXIN

=> d l14 ti abs ibib tot

L14 ANSWER 1 OF 1 USPATFULL on STN

TI Hybrid protein for inhibiting the degranulation of mastocytes and the use thereof

AB A hybrid protein contains a protein that binds to a receptor of mastocytes and basophils and is endocyted by them. The protein can be IgE; IgE fragment; IgE Fc fragment; antibody against IgE receptor of mastocytes and basophils; fragment of the antibody against the IgE receptor of mastocytes and basophils; antibody against mastocyte specific potassium channel; and mast cell degranulating peptide. The hybrid protein also contains a protease cleaving proteins of the secretion process of the mastocytes and basophils so as to inhibit the secretion process without killing the mastocytes and basophils. The protease can be **light chain Clostridium botulinum toxin**; proteolytically active fragment of the light chain of a Clostridium botulinum toxin containing an amino acid sequence His-Xaa-Xaa-Xaa-His-Xaa-Xaa-His wherein Xaa is an amino acid; light chain of the tetanus toxin; proteolytically active fragment of the light chain of the tetanus toxin containing His-Asp-Leu-Ile-His-Val-Leu-His; IgA protease of Neisseria gonorrhoeae; and proteolytic domain of the IgA protease of Neisseria gonorrhoeae.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2003:86306 USPATFULL

TITLE: Hybrid protein for inhibiting the degranulation of mastocytes and the use thereof



INVENTOR(S): Bigalke, Hans, Hannover, GERMANY, FEDERAL REPUBLIC OF  
PATENT ASSIGNEE(S): Frevert, Jurgen, Berlin, GERMANY, FEDERAL REPUBLIC OF  
BioteCon Gesellschaft fur biotechnologische Entwicklung  
und consulting mbH, Berlin, DE, 10589 (non-U.S.  
corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003059912	A1	20030327
APPLICATION INFO.:	US 2002-64903	A1	20020827 (10)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 2001-700540, filed on 19 Jan 2001, PENDING A 371 of International Ser. No. WO 1999-EP3272, filed on 12 May 1999, UNKNOWN		

	NUMBER	DATE
PRIORITY INFORMATION:	DE 1998-19821285	19980513
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	GUDRUN E. HUCKETT, LONSSTR. 53, WUPPERTAL, 42289	
NUMBER OF CLAIMS:	11	
EXEMPLARY CLAIM:	1	
LINE COUNT:	576	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		

=> s light chain tetanus toxin  
L15 0 LIGHT CHAIN TETANUS TOXIN

=> s IgA protease Neisseria gonorrhoeae  
L16 0 IGA PROTEASE NEISSERIA GONORRHEAE

=> s tetanus and IgE  
L17 1711 TETANUS AND IGE

=> d his

(FILE 'HOME' ENTERED AT 11:08:04 ON 01 DEC 2003)

FILE 'MEDLINE, USPATFULL, DGENE, EMBASE, WPIDS, BIOSIS, BIOBUSINESS'  
ENTERED AT 11:08:30 ON 01 DEC 2003

L1	1 S CONJUGATE AND MASTOCYTE BINDING
L2	171149 S HYBRID PROTEIN OR CONJUGATE
L3	21 S IGE AND IGA PROTEASE
L4	1711 S IGE AND TETANUS
L5	7 S L2 AND L3
L6	0 S L4 AND MASTOCYTE INACTIVATION
L7	0 S L4 AND DEGRANULATION INHIBITION
L8	1322 S MAST CELL DEGRANULATION AND INHIBITION
L9	38 S ALLERGY AND TREATMENT
L10	0 S L9 AND L8
L11	107 S L8 AND ALLERGIC RESPONSE
L12	88 S L11 AND IGE
L13	2 S L12 AND TETANUS TOXIN
L14	1 S LIGHT CHAIN CLOSTRIDIUM BOTULINUM TOXIN
L15	0 S LIGHT CHAIN TETANUS TOXIN
L16	0 S IGA PROTEASE NEISSERIA GONORRHEAE
L17	1711 S TETANUS AND IGE

=> l8 and l17

L8 IS NOT A RECOGNIZED COMMAND

The previous command name entered was not recognized by the system.  
For a list of commands available to you in the current file, enter  
"HELP COMMANDS" at an arrow prompt (=>).

=> s 18 and 117  
L18 12 L8 AND L17

=> d 118 ti abs ibib tot

L18 ANSWER 1 OF 12 USPATFULL on STN

TI Compositions and methods for screening and identifying anti-HCV agents  
AB The field of the invention is methods for screening for effector peptides, polypeptides and fragments thereof and RNA molecules selected inside living cells that have anti-HCV activity.

ACCESSION NUMBER: 2003:312126 USPATFULL  
TITLE: Compositions and methods for screening and identifying anti-HCV agents  
INVENTOR(S): Lu, Henry H., Foster City, CA, UNITED STATES  
Huang, Peiyong, Sunnyvale, CA, UNITED STATES  
Kinsella, Todd, Joliet, IL, UNITED STATES  
Martinez, Anthony, San Francisco, CA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003219723	A1	20031127
APPLICATION INFO.:	US 2002-152163	A1	20020520 (10)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	DORSEY & WHITNEY LLP, INTELLECTUAL PROPERTY DEPARTMENT, 4 EMBARCADERO CENTER, SUITE 3400, SAN FRANCISCO, CA, 94111		
NUMBER OF CLAIMS:	28		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	10 Drawing Page(s)		
LINE COUNT:	3162		

L18 ANSWER 2 OF 12 USPATFULL on STN

TI Bi-directionally cloned random cDNA expression vector libraries, compositions and methods of use  
AB The present invention provides random cDNA expression vector libraries, comprising expression vectors which comprise random cDNAs positioned in sense and antisense orientation, which are useful for the delivery and expression of a combination of genetic effector types to host cells. Methods for producing these libraries through bi-directional cloning of random cDNAs are also provided. Also provided herein are methods of using these libraries to screen for agents capable of modulating cell phenotype in desirable ways.

ACCESSION NUMBER: 2003:300312 USPATFULL  
TITLE: Bi-directionally cloned random cDNA expression vector libraries, compositions and methods of use  
INVENTOR(S): Lorens, James, Portola Valley, CA, UNITED STATES  
Bogenberger, Jakob M., San Francisco, CA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003211535	A1	20031113
APPLICATION INFO.:	US 2002-142648	A1	20020508 (10)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	BOZICEVIC, FIELD & FRANCIS LLP, 200 MIDDLEFIELD RD, SUITE 200, MENLO PARK, CA, 94025		
NUMBER OF CLAIMS:	20		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	5 Drawing Page(s)		
LINE COUNT:	3910		

L18 ANSWER 3 OF 12 USPATFULL on STN

TI Directionally cloned random cDNA expression vector libraries,  
compositions and methods of use

AB The present invention provides random cDNA expression vector libraries,  
comprising expression vectors which comprise random cDNAs positioned in  
sense orientation. Also provided are random cDNA expression vector  
libraries, comprising expression vectors which comprise random cDNAs  
positioned in antisense orientation. Methods for producing these  
libraries through directional cloning of random cDNAs are also provided.  
Also provided herein are methods of using these libraries to screen for  
agents capable of modulating cell phenotype in desirable ways.

ACCESSION NUMBER: 2003:300239 USPATFULL

TITLE: Directionally cloned random cDNA expression vector  
libraries, compositions and methods of use

INVENTOR(S): Shen, Mary, Newark, CA, UNITED STATES  
Yu, Simon, Newark, CA, UNITED STATES  
Wu, Xian, Redwood City, CA, UNITED STATES  
Payan, Donald, Hillsborough, CA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003211462	A1	20031113
APPLICATION INFO.:	US 2002-142662	A1	20020508 (10)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	BOZICEVIC, FIELD & FRANCIS LLP, 200 MIDDLEFIELD RD, SUITE 200, MENLO PARK, CA, 94025		
NUMBER OF CLAIMS:	26		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	4 Drawing Page(s)		
LINE COUNT:	3873		

L18 ANSWER 4 OF 12 USPATFULL on STN

TI Bio-energy muscle relaxants

AB Human muscle tissues involve striated and smooth muscles. Each muscle  
tissue possesses its own special function. Differences of physiology  
functions among the muscle tissues are mainly determined by their  
various initiation and signal transmission systems, defined as the  
pre-muscle molecular motor mechanism, or initiating and regulating  
mechanism. The current medications, drugs, and therapies for diseases  
and symptoms related abnormal increased muscle tone or excessive muscle  
contraction are aimed just at the pre-muscle molecular motor mechanisms,  
whereas without directly intending to effect on the muscle molecular  
motor mechanism i.e. the contractile apparatus mechanism at all, which,  
however, is in common for all kinds of muscle tissues. The muscle  
molecular motor mechanism mainly involves recycling of actin-myosin  
filament cross-bridge formation and sliding movement. In the process,  
bio-energy provided by ATP hydrolysis is necessarily required.  
Therefore, abnormal increased muscle tone or excessive contraction of  
muscle tissues under diseased conditions may be modified by  
**inhibition** of the muscle molecular motor with the actin-myosin  
ATPase inhibitor, which blocks hydrolysis of ATP, then reduces release  
of bio-energy for the muscle contraction.

Our studies in vitro and in vivo have demonstrated that BDM, an ATPase  
inhibitor, thereby, its analogues, derivatives, and other chemicals  
possessing similar effect on ATPase may be used as bio-energy muscle  
relaxants (general muscle relaxants).

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2002:12580 USPATFULL

TITLE: Bio-energy muscle relaxants

INVENTOR(S): Wang, Chong Gang, Montreal, CANADA  
Zhang, Yisheng, Montreal, CANADA  
Wang, Pei, Montreal, CANADA

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002006962	A1	20020117
APPLICATION INFO.:	US 2001-764417	A1	20010119 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2000-180795P	20000207 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	Yisheng Zhang and Pei Wang:., ADM Biotech, 1630 Du College, Saint-Laurent (Montreal), QC, H4L 2M4	
NUMBER OF CLAIMS:	6	
EXEMPLARY CLAIM:	1	
LINE COUNT:	3596	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 5 OF 12 USPATFULL on STN

TI Therapeutic multispecific compounds comprised of anti-Fc $\alpha$  receptor antibodies

AB Therapeutic multispecific compounds comprised of anti-Fc $\alpha$ . receptor antibodies and methods of use are provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2001:133879 USPATFULL

TITLE: Therapeutic multispecific compounds comprised of anti-Fc $\alpha$  receptor antibodies

INVENTOR(S): Deo, Yashwant M., Audubon, PA, United States  
Graziano, Robert, Frenchtown, NJ, United States  
Keler, Tibor, Ottsville, PA, United States

PATENT ASSIGNEE(S): Mederax, Inc. (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2001014328	A1	20010816
APPLICATION INFO.:	US 2001-772120	A1	20010126 (9)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1997-890011, filed on 10 Jul 1997, GRANTED, Pat. No. US 6193966 Continuation-in-part of Ser. No. US 1996-678194, filed on 11 Jul 1996, GRANTED, Pat. No. US 5922845		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	LAHIVE & COCKFIELD, 28 STATE STREET, BOSTON, MA, 02109		
NUMBER OF CLAIMS:	68		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	28 Drawing Page(s)		
LINE COUNT:	2753		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 6 OF 12 USPATFULL on STN

TI T cell epitopes of the major allergens from dermatophagoides (house dust mite)

AB The present invention provides isolated peptides of the major protein allergens of the genus Dermatophagoides. Peptides within the scope of the invention comprises at least one T cell epitope, or preferably at least two T cell epitopes of a protein allergen selected from the allergens Der p I, Der p II, Der f I, or Der f II. The invention also pertains to modified peptides having similar or enhanced therapeutic properties as the corresponding, naturally-occurring allergen or portion thereof, but having reduced side effects. The invention further provides

nucleic acid sequences coding for peptides of the invention. Methods of treatment or of diagnosis of sensitivity to house dust mites in an individual and therapeutic compositions comprising one or more peptides of the invention are also provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2001:121598 USPATFULL  
TITLE: T cell epitopes of the major allergens from  
dermatophagoides (house dust mite)  
INVENTOR(S): Garman, Richard D., Arlington, MA, United States  
Greenstein, Julia L., West Newton, MA, United States  
Kuo, Mei-chang, Winchester, MA, United States  
Rogers, Bruce L., Belmont, MA, United States  
Franzen, Henry M., Watertown, MA, United States  
Chen, Xian, North Chelmsford, MA, United States  
Evans, Sean, Acton, MA, United States  
Shaked, Ze'ev, Berkeley, CA, United States  
PATENT ASSIGNEE(S): ImmuLogic Pharmaceutical Corporation, Waltham, MA,  
United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6268491	B1	20010731
APPLICATION INFO.:	US 1995-484296		19950607 (8)
RELATED APPLN. INFO.:	Division of Ser. No. US 1995-445307, filed on 19 May 1995 Continuation-in-part of Ser. No. US 1994-227772, filed on 14 Apr 1994, now abandoned Continuation-in-part of Ser. No. WO 1993-US3471, filed on 14 Apr 1993 Continuation-in-part of Ser. No. US 1992-881396, filed on 8 May 1992, now abandoned Continuation-in-part of Ser. No. US 1991-777859, filed on 16 Oct 1991, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	GRANTED		
PRIMARY EXAMINER:	Scheiner, Laurie		
LEGAL REPRESENTATIVE:	Lahive & Cockfield, LLP, Remillard, Esq., Jane E., Mandragouras, Esq., Amy E.		
NUMBER OF CLAIMS:	5		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	61 Drawing Figure(s); 58 Drawing Page(s)		
LINE COUNT:	4341		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 7 OF 12 USPATFULL on STN  
TI Therapeutic multispecific compounds comprised of anti-Fc.alpha. receptor  
antibodies  
AB Therapeutic multispecific compounds comprised of anti-Fc.alpha. receptor  
antibodies and methods of use are provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2001:29120 USPATFULL  
TITLE: Therapeutic multispecific compounds comprised of  
anti-Fc.alpha. receptor antibodies  
INVENTOR(S): Deo, Yashwant M., Audubon, PA, United States  
Graziano, Robert, Frenchtown, NJ, United States  
Keler, Tibor, Ottsville, PA, United States  
PATENT ASSIGNEE(S): Mederax, Inc., Annandale, NJ, United States (U.S.  
corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6193966	B1	20010227
APPLICATION INFO.:	US 1997-890011		19970710 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1996-678194, filed		



on 11 Jul 1996, now patented, Pat. No. US 5922845  
DOCUMENT TYPE: Utility  
FILE SEGMENT: Granted  
PRIMARY EXAMINER: Bansal, Geetha P.  
LEGAL REPRESENTATIVE: Lahive & Cockfield, LLP, Remillard, Esq., Jane E.  
NUMBER OF CLAIMS: 29  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 30 Drawing Figure(s); 28 Drawing Page(s)  
LINE COUNT: 2686  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 8 OF 12 USPATFULL on STN

TI Compositions and methods for regulation of active TNF-.alpha.  
AB Substances comprising disaccharides and substances comprising  
carboxylated and/or sulfated oligosaccharides in substantially purified  
form, and methods of using same, are disclosed for the regulation of  
cytokine activity in a host. For instance, the secretion of active Tumor  
Necrosis Factor Alpha (TNF-.alpha.) can be either inhibited or augmented  
selectively by administration to the host of an effective amount of a  
substance of the invention. Thus, the present invention also relates to  
pharmaceutical compositions and their use for the prevention and/or  
treatment of pathological processes involving the induction of active  
cytokine secretion, such as TNF-.alpha.. The invention also relates to  
the initiation of a desirable immune system-related response by the host  
to the presence of activators, including pathogens. The substances and  
pharmaceutical compositions of the present invention may be administered  
daily, at very low effective doses, typically below 0.1 mg/kg human, or  
at intervals of up to about 5-8 days, preferably once a week.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2000:12786 USPATFULL  
TITLE: Compositions and methods for regulation of active  
TNF-.alpha.  
INVENTOR(S): Cohen, Irun R., Rehovot, Israel  
Lider, Ofer, Rehovot, Israel  
Cahalon, Liora, Givataim, Israel  
Shoseyov, Oded, Shimshon, Israel  
Margalit, Raanan, Rehovot, Israel  
PATENT ASSIGNEE(S): Yeda Research and Development Co. Ltd., Rehovot, Israel  
(non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6020323		20000201
APPLICATION INFO.:	US 1995-486127		19950607 (8)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1995-436330, filed on 10 May 1995 which is a continuation-in-part of Ser. No. US 1993-96739, filed on 23 Jul 1993, now abandoned which is a continuation-in-part of Ser. No. US 1992-974750, filed on 10 Nov 1992, now abandoned which is a continuation-in-part of Ser. No. US 1992-878188, filed on 1 May 1992, now abandoned		

DOCUMENT TYPE: Utility  
FILE SEGMENT: Granted  
PRIMARY EXAMINER: Achutamurthy, Ponnathapura  
ASSISTANT EXAMINER: Ponnaluri, P.  
LEGAL REPRESENTATIVE: Pennie & Edmonds LLP  
NUMBER OF CLAIMS: 17  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 65 Drawing Figure(s); 54 Drawing Page(s)  
LINE COUNT: 3440  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 9 OF 12 USPATFULL on STN

TI T cell epitopes of the major allergens from Dermatophagoides (house dust mite)

AB The present invention provides isolated peptides of the major protein allergens of the genus Dermatophagoides. Peptides within the scope of the invention comprises at least one T cell epitope, or preferably at least two T cell epitopes of a protein allergen selected from the allergens Der p I, Der p II, Der f I, or Der f II. The invention also pertains to modified peptides having similar or enhanced therapeutic properties as the corresponding, naturally-occurring allergen or portion thereof, but having reduced side effects. The invention further provides nucleic acid sequences coding for peptides of the invention. Methods of treatment or of diagnosis of sensitivity to house dust mites in an individual and therapeutic compositions comprising one or more peptides of the invention are also provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 1999:128144 USPATFULL

TITLE: T cell epitopes of the major allergens from Dermatophagoides (house dust mite)

INVENTOR(S): Garman, Richard D., Arlington, MA, United States  
Greenstein, Julia L., West Newton, MA, United States  
Kuo, Mei-chang, Winchester, MA, United States  
Rogers, Bruce L., Belmont, MA, United States  
Franzen, Henry M., Watertown, MA, United States  
Chen, Xian, North Chelmsford, MA, United States  
Evans, Sean, Acton, MA, United States  
Shaked, Ze'ev, Berkeley, CA, United States

PATENT ASSIGNEE(S): Immulogic Pharmaceutical Corporation, Waltham, MA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5968526		19991019
APPLICATION INFO.:	US 1995-478572		19950607 (8)
RELATED APPLN. INFO.:	Division of Ser. No. US 1995-445307, filed on 19 May 1995 which is a continuation-in-part of Ser. No. US 1994-227772, filed on 14 Apr 1994, now abandoned which is a continuation-in-part of Ser. No. WO 1995-US4481, filed on 12 Apr 1995		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Scheiner, Laurie		
LEGAL REPRESENTATIVE:	Lanive & Cockfield, LLP		
NUMBER OF CLAIMS:	13		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	58 Drawing Figure(s); 58 Drawing Page(s)		
LINE COUNT:	6649		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 10 OF 12 USPATFULL on STN

TI Methods for regulation of active TNF-.alpha.

AB Substances comprising disaccharides and substances comprising carboxylated and/or sulfated oligosaccharides in substantially purified form, and methods of using same, are disclosed for the regulation of cytokine activity in a host. For instance, the secretion of active Tumor Necrosis Factor Alpha (TNF-.alpha.) can be either inhibited or augmented selectively by administration to the host of an effective amount of a substance of the invention. Thus, the present invention also relates to pharmaceutical compositions and their use for the prevention and/or treatment of pathological processes involving the induction of active cytokine secretion, such as TNF-.alpha.. The invention also relates to the initiation of a desirable immune system-related response by the host to the presence of activators, including pathogens. The substances and pharmaceutical compositions of the present invention may be administered

daily, at very low effective doses, typically below 0.1 mg/kg human, or at intervals of tip to about 5-8 days, preferably once a week.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 1999:7369 USPATFULL  
TITLE: Methods for regulation of active TNF-.alpha.  
INVENTOR(S): Cohen, Irun R., Rehovot, Israel  
Lider, Ofer, Rehovot, Israel  
Cahalon, Liora, Givataim, Israel  
Shoseyov, Oded, Shimshon, Israel  
Margalit, Raanan, Rehovot, Israel  
PATENT ASSIGNEE(S): Yeda Research and Development Co. Ltd., Israel  
(non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5861382		19990119
	WO 9411006		19940526
APPLICATION INFO.:	US 1995-436330		19950629 (8)
	WO 1993-US10868		19931109
			19950629 PCT 371 date
			19950629 PCT 102(e) date
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1993-96739, filed on 23 Jul 1993, now abandoned And a continuation-in-part of Ser. No. US 1992-974750, filed on 10 Nov 1992, now abandoned which is a continuation-in-part of Ser. No. US 1992-878188, filed on 1 May 1992, now abandoned And a continuation of Ser. No. US 1995-384203, filed on 3 Feb 1995, now patented, Pat. No. US 5474987		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Achutamurthy, Ponnathapura		
ASSISTANT EXAMINER:	Ponnaluri, Padmashri		
LEGAL REPRESENTATIVE:	Pennie & Edmonds LLP		
NUMBER OF CLAIMS:	5		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	65 Drawing Figure(s); 54 Drawing Page(s)		
LINE COUNT:	3391		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L18 ANSWER 11 OF 12 USPATFULL on STN

TI T cell epitopes of the major allergens from dermatophagoides (house dust mite)

AB The present invention provides isolated peptides of the major protein allergens of the genus Dermatophagoides. Peptides within the scope of the invention comprises at least one T cell epitope, or preferably at least two T cell epitopes of a protein allergen selected from the allergens Der p I, Der p II, Der f I, or Der f II. The invention also pertains to modified peptides having similar or enhanced therapeutic properties as the corresponding, naturally-occurring allergen or portion thereof, but having reduced side effects. The invention further provides nucleic acid sequences coding for peptides of the invention. Methods of treatment or of diagnosis of sensitivity to house dust mites in an individual and therapeutic compositions comprising one or more peptides of the invention are also provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 1998:124196 USPATFULL  
TITLE: T cell epitopes of the major allergens from dermatophagoides (house dust mite)  
INVENTOR(S): Garman, Richard D., Arlington, MA, United States  
Greenstein, Julia L., West Newton, MA, United States  
Kuo, Mei-chang, Winchester, MA, United States

Rogers, Bruce L., Belmont, MA, United States  
 Franzen, Henry M., Watertown, MA, United States  
 Chen, Xian, North Chelmsford, MA, United States  
 Evans, Sean, Acton, MA, United States  
 Shaked, Ze'ev, Berkeley, CA, United States  
 PATENT ASSIGNEE(S): Immulogic Pharmaceutical Corporation, Waltham, MA,  
 United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5820862		19981013
APPLICATION INFO.:	US 1995-482142		19950607 (8)
RELATED APPLN. INFO.:	Division of Ser. No. US 1995-445307, filed on 19 May 1995 which is a continuation-in-part of Ser. No. US 1994-227772, filed on 14 Apr 1994, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Scheiner, Laurie		
LEGAL REPRESENTATIVE:	Lahive & Cockfield, LLP		
NUMBER OF CLAIMS:	21		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	56 Drawing Figure(s); 58 Drawing Page(s)		
LINE COUNT:	5621		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

L18 ANSWER 12 OF 12 USPATFULL on STN  
 TI Method of production of antigen-specific glycosylation inhibiting factor  
 AB A method for the recombinant production and for the isolation of antigen-specific glycosylation inhibiting factor (AgGIF) is provided. Also disclosed is a method for modulating the immune responses in an antigen-specific manner utilizing a AgGIF, comprising soluble non-specific GIF-TCR.alpha. chains which bind to the antigen, and which suppress the immune response in an antigen-specific fashion.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.  
 ACCESSION NUMBER: 1998:111801 USPATFULL  
 TITLE: Method of production of antigen-specific glycosylation inhibiting factor  
 INVENTOR(S): Ishizaka, Kimishige, La Jolla, CA, United States  
 Ishii, Yasuyuki, La Jolla, CA, United States  
 PATENT ASSIGNEE(S): La Jolla Institute for Allergy and Immunology, San Diego, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5807714		19980915
APPLICATION INFO.:	US 1995-416336		19950404 (8)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Eisenschenk, Frank C.		
ASSISTANT EXAMINER:	Nolan, Patrick		
LEGAL REPRESENTATIVE:	Fish & Richardson, P.C.		
NUMBER OF CLAIMS:	20		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	14 Drawing Figure(s); 8 Drawing Page(s)		
LINE COUNT:	2069		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

=> s clostridium botulinum toxin  
 L19 443 CLOSTRIDIUM BOTULINUM TOXIN

=> s l19 and Fc fragment  
 L20 1 L19 AND FC FRAGMENT



=> d 120 ti abs ibib tot

L20 ANSWER 1 OF 1 USPATFULL on STN

TI Hybrid protein for inhibiting the degranulation of mastocytes and the use thereof

AB A hybrid protein contains a protein that binds to a receptor of mastocytes and basophils and is endocytosed by them. The protein can be IgE; IgE fragment; IgE **Fc fragment**; antibody against IgE receptor of mastocytes and basophils; fragment of the antibody against the IgE receptor of mastocytes and basophils; antibody against mastocyte specific potassium channel; and mast cell degranulating peptide. The hybrid protein also contains a protease cleaving proteins of the secretion process of the mastocytes and basophils so as to inhibit the secretion process without killing the mastocytes and basophils. The protease can be light chain **Clostridium botulinum toxin**; proteolytically active fragment of the light chain of a **Clostridium botulinum toxin** containing an amino acid sequence His-Xaa-Xaa-Xaa-His-Xaa-Xaa-His wherein Xaa is an amino acid; light chain of the tetanus toxin; proteolytically active fragment of the light chain of the tetanus toxin containing His-Asp-Leu-Ile-His-Val-Leu-His; IgA protease of Neisseria gonorrhoeae; and proteolytic domain of the IgA protease of Neisseria gonorrhoeae.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2003:86306 USPATFULL

TITLE: Hybrid protein for inhibiting the degranulation of mastocytes and the use thereof

INVENTOR(S): Bigalke, Hans, Hannover, GERMANY, FEDERAL REPUBLIC OF Frevert, Jurgen, Berlin, GERMANY, FEDERAL REPUBLIC OF

PATENT ASSIGNEE(S): BioteCon Gesellschaft fur biotechnologische Entwicklung und consulting mbH, Berlin, DE, 10589 (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003059912	A1	20030327
APPLICATION INFO.:	US 2002-64903	A1	20020827 (10)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 2001-700540, filed on 19 Jan 2001, PENDING A 371 of International Ser. No. WO 1999-EP3272, filed on 12 May 1999, UNKNOWN		

	NUMBER	DATE
PRIORITY INFORMATION:	DE 1998-19821285	19980513
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	GUDRUN E. HUCKETT, LONSSTR. 53, WUPPERTAL, 42289	
NUMBER OF CLAIMS:	11	
EXEMPLARY CLAIM:	1	
LINE COUNT:	576	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

=> d his

(FILE 'HOME' ENTERED AT 11:08:04 ON 01 DEC 2003)

FILE 'MEDLINE, USPATFULL, DGENE, EMBASE, WPIDS, BIOSIS, BIOBUSINESS' ENTERED AT 11:08:30 ON 01 DEC 2003

L1 1 S CONJUGATE AND MASTOCYTE BINDING  
L2 171149 S HYBRID PROTEIN OR CONJUGATE  
L3 21 S IGE AND IGA PROTEASE



L4 1711 S IGE AND TETANUS  
 L5 7 S L2 AND L3  
 L6 0 S L4 AND MASTOCYTE INACTIVATION  
 L7 0 S L4 AND DEGRANULATION INHIBITION  
 L8 1322 S MAST CELL DEGRANULATION AND INHIBITION  
 L9 38 S ALLERGY AND TREATMENT  
 L10 0 S L9 AND L8  
 L11 107 S L8 AND ALLERGIC RESPONSE  
 L12 88 S L11 AND IGE  
 L13 2 S L12 AND TETANUS TOXIN  
 L14 1 S LIGHT CHAIN CLOSTRIDIUM BOTULINUM TOXIN  
 L15 0 S LIGHT CHAIN TETANUS TOXIN  
 L16 0 S IGA PROTEASE NEISSERIA GONORRHEAE  
 L17 1711 S TETANUS AND IGE  
 L18 12 S L8 AND L17  
 L19 443 S CLOSTRIDIUM BOTULINUM TOXIN  
 L20 1 S L19 AND FC FRAGMENT

=> s 119 and 18

L21 2 L19 AND L8

=> d 121 ti abs ibib tot

L21 ANSWER 1 OF 2 USPATFULL on STN

TI Cytotoxin (non-neurotoxin) for the treatment of human headache disorders and inflammatory diseases

AB Pharmaceutical applications of a chemodenervating agent reduce pain by altering release of pain- and inflammation-mediating autocooids, with a duration of action between 12-24 weeks. The limiting factor in dosing for this application is weakness and paralysis created by higher doses of the chemodenervating pharmaceutical mediated by action of the neurotoxin component of this chemodenervating pharmaceutical. The invention described herein represents a novel mechanism and pharmaceutical formulation which eliminates the neurotoxin component of the chemodenervating pharmaceutical, while retaining the cytotoxin component which provides an essential bioeffect for the relief of pain and inflammation. The invention allows for improvement in administering the pharmaceutical agent for the reduction of pain and/or inflammation without causing muscular weakness and paralysis.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2002:329485 USPATFULL

TITLE: Cytotoxin (non-neurotoxin) for the treatment of human headache disorders and inflammatory diseases

INVENTOR(S): Borodic, Gary E., Canton, MA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002187164	A1	20021212
APPLICATION INFO.:	US 2002-212657	A1	20020805 (10)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1999-458784, filed on 10 Dec 1999, GRANTED, Pat. No. US 6429189		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	Michael N. Nitabach, Milbank, Tweed, Hadley & McCloy LLP, 1 Chase Manhattan Plaza, New York, NY, 10005		
NUMBER OF CLAIMS:	26		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	8 Drawing Page(s)		
LINE COUNT:	576		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L21 ANSWER 2 OF 2 USPATFULL on STN

TI Cytotoxin (non-neurotoxin) for the treatment of human headache disorders

and inflammatory diseases  
AB Pharmaceutical applications of a chemodenervating agent reduce pain by altering release of pain and inflammation-mediating autocooids, with a duration of action between 12-24 weeks. The limiting factor in dosing for this application is weakness and paralysis created by higher doses of the chemodenervating pharmaceutical. This weakness and paralysis is mediated by action of the neurotoxin component of the chemodenervating pharmaceutical. The invention described herein represents a novel mechanism and pharmaceutical formulation which eliminates the neurotoxin component of the chemodenervating pharmaceutical, while retaining the cytotoxin component which provides an essential bioeffect for the relief of pain and inflammation. The invention allows for improvement in administering the pharmaceutical agent for the reduction of pain and/or inflammation without causing muscular weakness and paralysis.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2002:194871 USPATFULL  
TITLE: Cytotoxin (non-neurotoxin) for the treatment of human headache disorders and inflammatory diseases  
INVENTOR(S): Borodic, Gary E., Canton, MA, United States  
PATENT ASSIGNEE(S): Botulinum Toxin Research Associates, Inc., Qunicy, MA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6429189	B1	20020806
APPLICATION INFO.:	US 1999-458784		19991210 (9)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	GRANTED		
PRIMARY EXAMINER:	Cochrane Carlson, Karen		
ASSISTANT EXAMINER:	Robinson, Hope A.		
LEGAL REPRESENTATIVE:	Milbank, Tweed, Hadley & McCloy LLP		
NUMBER OF CLAIMS:	29		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	8 Drawing Figure(s); 2 Drawing Page(s)		
LINE COUNT:	758		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

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(FILE 'HOME' ENTERED AT 11:08:04 ON 01 DEC 2003)

FILE 'MEDLINE, USPATFULL, DGENE, EMBASE, WPIDS, BIOSIS, BIOBUSINESS'  
ENTERED AT 11:08:30 ON 01 DEC 2003

L1	1 S CONJUGATE AND MASTOCYTE BINDING
L2	171149 S HYBRID PROTEIN OR CONJUGATE
L3	21 S IGE AND IGA PROTEASE
L4	1711 S IGE AND TETANUS
L5	7 S L2 AND L3
L6	0 S L4 AND MASTOCYTE INACTIVATION
L7	0 S L4 AND DEGRANULATION INHIBITION
L8	1322 S MAST CELL DEGRANULATION AND INHIBITION
L9	38 S ALLERGY AND TREATEMENT
L10	0 S L9 AND L8
L11	107 S L8 AND ALLERGIC RESPONSE
L12	88 S L11 AND IGE
L13	2 S L12 AND TETANUS TOXIN
L14	1 S LIGHT CHAIN CLOSTRIDIUM BOTULINUM TOXIN
L15	0 S LIGHT CHAIN TETANUS TOXIN
L16	0 S IGA PROTEASE NEISSERIA GONORRHEAE
L17	1711 S TETANUS AND IGE
L18	12 S L8 AND L17
L19	443 S CLOSTRIDIUM BOTULINUM TOXIN

L20 1 S L19 AND FC FRAGMENT  
L21 2 S L19 AND L8

=> s mast cell degranulating peptide  
L22 419 MAST CELL DEGRANULATING PEPTIDE

=> s l9 and l22  
L23 0 L9 AND L22

=> d l22 ti abs ibib 1-10

L22 ANSWER 1 OF 419 MEDLINE on STN

TI Cloning and characterization analysis of the genes encoding precursor of **mast cell degranulating peptide** from 2 honeybee and 3 wasp species.

AB The precursors of **mast cell degranulating peptide** (MCDP) genes were amplified by RT-PCR from the total RNA of venom gland of two honeybee species, *Apis mellifera ligustica*, *Apis cerana cerana*, and three wasp species, *Vespa magnifica*, *Vespa velutina nigrothorax* and *Polistes hebraeus*, respectively. Their PCR products were ligated into pGEM T-easy vector and the nucleotide sequences were analyzed. The length of five fragments was the same, it was 341 bp containing an ORF of 153 bp coding the precursor of MCDP and 188 bp 3' noncoding region. They have more than 90% homologues with each other in nucleotide sequences. The precursors of MCDP of *A. cerana cerana*, *V. magnifica*, *V. velutina nigrothorax* and *P. hebraeus* shared 96%, 100%, 94% and 98% homology with *A. mellifera ligustica*, respectively. The two species of wasps, *V. magnifica* and *V. velutina nigrothorax*, contained the same MCDP as *A. mellifera ligustica*, though they belong to different families with quite different biological properties, while *A. cerana cerana* contained the different MCDP in their venom as *A. mellifera ligustica* though they belong to the same genus. The fifth amino acid residue of MCDP in *A. cerana cerana* and *P. hebraeus* is arginine, replacing the cysteine, an important disulfide bridges element, in the position as in *A. mellifera ligustica*.

ACCESSION NUMBER: 2003500613 IN-PROCESS  
DOCUMENT NUMBER: 22939087 PubMed ID: 14577379  
TITLE: Cloning and characterization analysis of the genes encoding precursor of **mast cell degranulating peptide** from 2 honeybee and 3 wasp species.  
AUTHOR: Zhang Su-Fang; Shi Wan-Jun; Cheng Jia-An; Zhang Chuan-Xi  
CORPORATE SOURCE: Institute of Applied Entomology, Zhejiang University, Hangzhou 310029, China.. zhangsufang@fescmail.net  
SOURCE: I CHUAN HSUEH PAO. ACTA GENETICA SINICA, (2003 Sep) 30 (9) 861-6.  
Journal code: 7900784. ISSN: 0379-4172.  
PUB. COUNTRY: China  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: IN-PROCESS; NONINDEXED; Priority Journals  
ENTRY DATE: Entered STN: 20031028  
Last Updated on STN: 20031028

X L22 ANSWER 2 OF 419 MEDLINE on STN

TI Histamine-releasing activity and binding to the FcepsilonRI alpha human mast cell receptor subunit of **mast cell degranulating peptide** analogues with alanine substitutions.

AB We have investigated the effects on mast cell binding and the histamine-releasing activity of l-alanine substitutions for the five lysine residues and the proline residue in the MCD peptide (1) sequence. All synthesized analogues Ala(2) (2), Ala(6) (3), Ala(11) (4), Ala(12) (5), Ala(17) (6), and Ala(21) (7) showed a loss of histamine release

compared to the parent MCD peptide 1. The order of decreased potency was 1 > 6 > 7 > 4 > 2 > 3 > 5. The alanine-substituted analogues showed a 5- to 6-fold decrease in histamine release for analogues 6, 7, and 4 and a 10-fold decrease for analogue 2. A more significant loss was observed in analogue 3 with a 75-fold loss of activity. The greatest loss of activity was observed with alanine substituting for proline in position 12. This analogue 5 showed a 130-fold loss of histamine release compared to the parent peptide 1. The ability of each analogue to interact with the FcepsilonRIalpha subunit of the human mast cell receptor was analyzed by competitive binding of the fluorescent peptide 1 and the alanine analogues using fluorescence polarization. The binding affinities of analogues 4, 6, and 7 for the mast cell receptor were less than the affinity of the native peptide 1. Analogues 2, 3, and 5 showed an increase in binding affinity, with analogue 5 showing the highest increase compared to the native peptide 1. The order of increased affinity was 5 > 3 > 2 > 1 > 4, 6, 7. On the basis of these results, the possibility that analogue 5 inhibits peptide 1-stimulated histamine release was examined. We found that peptide 5 did not inhibit histamine release by peptide 1. The analogues 2, 3, and especially analogue 5 may be useful leads toward study of agents that prevent binding of IgE to mast cell receptors.

ACCESSION NUMBER: 2003316290 MEDLINE  
DOCUMENT NUMBER: 22710997 PubMed ID: 12825939  
TITLE: Histamine-releasing activity and binding to the FcepsilonRI alpha human mast cell receptor subunit of **mast cell degranulating peptide** analogues with alanine substitutions.  
AUTHOR: Buku A; Mendlowitz M; Condie B A; Price J A  
CORPORATE SOURCE: Department of Physiology and Biophysics, Mount Sinai School of Medicine, 1 Gustave L Levy Place, Box 1218, New York, New York 10029, USA.. Angeliki.Buku@mssm.edu  
SOURCE: JOURNAL OF MEDICINAL CHEMISTRY, (2003 Jul 3) 46 (14) 3008-12. *bad date*  
JOURNAL code: 9716531. ISSN: 0022-2623.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200308  
ENTRY DATE: Entered STN: 20030709  
Last Updated on STN: 20030808  
Entered Medline: 20030807

L22 ANSWER 3 OF 419 MEDLINE on STN

TI Inflammatory role of two venom components of yellow jackets (*Vespula vulgaris*): a **mast cell degranulating peptide** mastoparan and phospholipase A1.

AB BACKGROUND: Venom sac extract of yellow jackets *Vespula vulgaris* was toxic in mice when injected intraperitoneally but not toxic when injected subcutaneously. Necropsy showed the toxicity to be an inflammatory response. METHODS: Venom peptide and protein fractions were tested to identify the inflammatory components. The active components were tested to establish whether they might function as adjuvant for venom protein-specific antibody response. RESULTS: Venom toxicity required the synergistic action of two venom components, a **mast cell degranulating peptide** mastoparan and phospholipase A1. Both components stimulated prostaglandin E(2) release from murine peritoneal cells and macrophages. Mastoparan showed a weak activity to enhance IgE and IgG1 responses to a yellow jacket venom protein Ves v 5 in BALB/c mice. It was not possible to assess the adjuvant activity of phospholipase A1 because of its suppression of Ves v 5-specific response. Melittin, a **mast cell degranulating peptide** from bee venom, was inactive as an adjuvant for Ves v 5-specific response. CONCLUSION: Yellow jacket venom contains two inflammatory components, mastoparan and phospholipase A1. Our findings



suggest that mastoparan can function as a weak adjuvant for TH2 cell-associated antibody response.

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ACCESSION NUMBER: 2003235902 MEDLINE  
DOCUMENT NUMBER: 22643038 PubMed ID: 12759486  
TITLE: Inflammatory role of two venom components of yellow jackets (Vespula vulgaris): a mast cell degranulating peptide mastoparan and phospholipase A1.  
AUTHOR: King Te Piao; Jim Sui Yee; Wittkowski Knut M  
CORPORATE SOURCE: The Rockefeller University, New York, NY 10021, USA.. kingtp@mail.rockefeller.edu  
CONTRACT NUMBER: M01-RR00102 (NCRR)  
SOURCE: INTERNATIONAL ARCHIVES OF ALLERGY AND IMMUNOLOGY, (2003 May) 131 (1) 25-32.  
Journal code: 9211652. ISSN: 1018-2438.  
PUB. COUNTRY: Switzerland  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200306  
ENTRY DATE: Entered STN: 20030522  
Last Updated on STN: 20030624  
Entered Medline: 20030623

L22 ANSWER 4 OF 419 MEDLINE on STN

TI **Mast cell degranulating peptide**

binds to RBL-2H3 mast cell receptors and inhibits IgE binding.

AB Fluorescent and biotinylated analogs of mast cell degranulating (MCD) peptide were synthesized and the labels fluorescein isothiocyanate and N-hydroxysuccinimidobiotin were conjugated at position 1 in the MCD peptide sequence. The analogs with these moieties retained histamine-releasing activity as high as that of the parent MCD peptide in rat peritoneal mast cell assays. These labeled analogs were used in rat basophilic leukemia cells (RBL-2H3) to demonstrate by confocal microscopy and flow cytometry the specific binding of MCD peptide to mast cell receptors. Consequently MCD peptide was found to compete with and inhibit the binding of fluorescent IgE on RBL cells as monitored by flow cytometry. Thus MCD peptide may prove to be useful in the study of IgE receptor-bearing cells.

ACCESSION NUMBER: 2002061037 MEDLINE  
DOCUMENT NUMBER: 21646709 PubMed ID: 11786182  
TITLE: **Mast cell degranulating peptide** binds to RBL-2H3 mast cell receptors and inhibits IgE binding.  
AUTHOR: Buku A; Price J A; Mendlowitz M; Masur S  
CORPORATE SOURCE: Department of Physiology and Biophysics, Mount Sinai School of Medicine, New York, NY 10029, USA.. buku@physbio.mssm.edu  
CONTRACT NUMBER: EY 09414 (NEI)  
SOURCE: PEPTIDES, (2001 Dec) 22 (12) 1993-8.  
Journal code: 8008690. ISSN: 0196-9781.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200203  
ENTRY DATE: Entered STN: 20020125  
Last Updated on STN: 20020314  
Entered Medline: 20020313

L22 ANSWER 5 OF 419 MEDLINE on STN

TI Further studies on the structural requirements for mast cell degranulating (MCD) peptide-mediated histamine release.



AB Mast cell degranulating (MCD) peptide was modified in its two disulfide bridges and in the two arginine residues in order to measure the ability of these analogs to induce histamine release from mast cells in vitro. Analogs prepared were [Ala(3,15)]MCD, [Ala(5,19)]MCD, [Orn(16)]MCD, and [Orn(7,16)]MCD. Their histamine-releasing activity was determined spectrofluorometrically with peritoneal mast cells. The monocyclic analogs in which the cysteine residues were replaced pairwise with alanine residues showed three-to ten-fold diminished histamine-releasing activity respectively, compared with the parent MCD peptide. Substantial increases in activity were observed where arginine residues were replaced by ornithines. The ornithine-mono substituted analog showed an almost six-fold increase and the ornithine-doubly substituted analog three-fold increase in histamine-releasing activity compared with the parent MCD peptide. The structural changes associated with these activities were followed by circular dichroism (CD) spectroscopy. Changes in the shape and ellipticity of the CD spectra reflected a role for the disulfide bonds and the two arginine residues in the overall conformation and biological activity of the molecule.

ACCESSION NUMBER: 2002061036 MEDLINE  
DOCUMENT NUMBER: 21646708 PubMed ID: 11786181  
TITLE: Further studies on the structural requirements for mast cell degranulating (MCD) peptide-mediated histamine release.  
AUTHOR: Buku A; Price J A  
CORPORATE SOURCE: Department of Physiology and Biophysics, Mount Sinai School of Medicine, New York, NY 10029, USA..  
buku@physbio.mssm.edu  
SOURCE: PEPTIDES, (2001 Dec) 22 (12) 1987-91.  
Journal code: 8008690. ISSN: 0196-9781.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200203  
ENTRY DATE: Entered STN: 20020125  
Last Updated on STN: 20020314  
Entered Medline: 20020313

L22 ANSWER 6 OF 419 MEDLINE on STN

TI A voltage-dependent transient K(+) current in rat dental pulp cells.  
AB We characterized a voltage-dependent transient K(+) current in dental pulp fibroblasts on dental pulp slice preparations by using a nystatin perforated-patch recording configuration. The mean resting membrane potential of dental pulp fibroblasts was -53 mV. Depolarizing voltage steps to +60 mV from a holding potential of -80 mV evoked transient outward currents that are activated rapidly and subsequently inactivated during pulses. The activation threshold of the transient outward current was -40 mV. The reversal potential of the current closely followed the K(+) equilibrium potential, indicating that the current was selective for K(+). The steady-state inactivation of the peak outward K(+) currents described by a Boltzmann function with half-inactivation occurred at -47 mV. The K(+) current exhibited rapid activation, and the time to peak amplitude of the current was dependent on the membrane potentials. The inactivation process of the current was well fitted with a single exponential function, and the current exhibited slow inactivating kinetics (the time constants of decay ranged from 353 ms at -20 mV to 217 ms at +60 mV). The K(+) current was sensitive to intracellular Cs(+) and to extracellular 4-aminopyridine in a concentration-dependent manner, but it was not sensitive to tetraethylammonium, **mast cell degranulating peptide**, and dendrotoxin-I. The blood depressing substance-I failed to block the K(+) current. These results indicated that dental pulp fibroblasts expressed a slow-inactivating transient K(+) current.

ACCESSION NUMBER: 2001446713 MEDLINE

DOCUMENT NUMBER: 21385539 PubMed ID: 11492959  
TITLE: A voltage-dependent transient K(+) current in rat dental pulp cells.  
AUTHOR: Shibukawa Y; Suzuki T  
CORPORATE SOURCE: Department of Physiology, Tokyo Dental College, Chiba, 261-8502 Japan.. yshibuka@tdc.ac.jp  
SOURCE: JAPANESE JOURNAL OF PHYSIOLOGY, (2001 Jun) 51 (3) 345-53. Journal code: 2985184R. ISSN: 0021-521X.  
PUB. COUNTRY: Japan  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200110  
ENTRY DATE: Entered STN: 20010813  
Last Updated on STN: 20011029  
Entered Medline: 20011025

L22 ANSWER 7 OF 419 MEDLINE on STN  
TI Crystallization and preliminary X-ray diffraction analysis of a eumenine mastoparan toxin: a new class of **mast-cell degranulating peptide** in the wasp venom.  
AB Mastoparans are tetradecapeptides found to be the major component of vespid venoms. A mastoparan toxin isolated from the venom of *Anterhynchium flavomarginatum micado* has been crystallized and X-ray diffraction data collected to 2.7 Å resolution using a synchrotron-radiation source. Crystals were determined to belong to the space group P6(2)22 (P6(4)22). This is the first mastoparan to be crystallized and will provide further insights into the conformational significance of mastoparan toxins with respect to their potency and activity in G-protein regulation.

ACCESSION NUMBER: 2001113651 MEDLINE  
DOCUMENT NUMBER: 20508225 PubMed ID: 11053843  
TITLE: Crystallization and preliminary X-ray diffraction analysis of a eumenine mastoparan toxin: a new class of **mast-cell degranulating peptide** in the wasp venom.  
AUTHOR: Canduri F; Delatorre P; Fadel V; Lorenzi C C; Pereira J H; Olivieri J R; Ruggiero Neto J; Konno K; Palma M S; Yamane T; de Azevedo W F Jr  
CORPORATE SOURCE: Departamento de Fisica, IBILCE, UNESP, CP 136, CEP 15054-000, Sao Jose Rio Preto, SP, Brazil.  
SOURCE: ACTA CRYSTALLOGRAPHICA. SECTION D: BIOLOGICAL CRYSTALLOGRAPHY, (2000 Nov) 56 ( Pt 11) 1434-6. Journal code: 9305878. ISSN: 0907-4449.  
PUB. COUNTRY: Denmark  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200102  
ENTRY DATE: Entered STN: 20010322  
Last Updated on STN: 20010322  
Entered Medline: 20010215

L22 ANSWER 8 OF 419 MEDLINE on STN  
TI Control of cell proliferation by cell volume alterations in rat C6 glioma cells.  
AB K<sup>+</sup> and Cl<sup>-</sup> channels are involved in regulating the proliferation of a number of cell types. Two main hypotheses have been proposed to explain the mechanism by which these channels influence cell proliferation: regulation of membrane potential and regulation of cell volume. In order to test these hypotheses, we measured, under different experimental conditions, the volume, membrane potential and rate of proliferation of C6 glioma cells. Cells cultured in control medium for 1-4 days were compared with cells cultured for the same period of time in the presence of broad

spectrum channel blockers: tetraethylammonium, 5-nitro-2-(3-phenylpropylamino) benzoic acid (NPPB) and Cs<sup>+</sup>, in hypertonic media (29% increased osmolarity with NaCl, KCl or sucrose), in hypotonic medium (23% decreased osmolarity with H<sub>2</sub>O) or in the presence of the specific channel blockers, i.e. **mast cell degranulating peptide**, charybdotoxin or chlorotoxin. In all of these conditions, we observed a close correspondence between the rate of proliferation and the mean cell volume. The proliferation decreased when volume increased. Moreover, whereas control cells were flattened, spindle-shaped, bipolar or multipolar, cells cultured in media supplemented with NPPB, KCl or CsCl were round with few processes. Of the agents tested, only KCl and Cs<sup>+</sup> depolarized the cells. These results show that alterations of the rate of proliferation by K<sup>+</sup> and Cl<sup>-</sup> channel blockers or anisotonia are closely related with changes in cell volume or form but are not correlated with changes in membrane potential.

ACCESSION NUMBER: 2000490281 MEDLINE  
 DOCUMENT NUMBER: 20494952 PubMed ID: 11041554  
 TITLE: Control of cell proliferation by cell volume alterations in rat C6 glioma cells.  
 AUTHOR: Rouzaille-Dubois B; Milandri J B; Bostel S; Dubois J M  
 CORPORATE SOURCE: Laboratoire de Neurobiologie Cellulaire et Moleculaire, CNRS UPR 9040, Gif-sur-Yvette, France.  
 SOURCE: PFLUGERS ARCHIV. EUROPEAN JOURNAL OF PHYSIOLOGY, (2000 Oct) 440 (6) 881-8.  
 Journal code: 0154720. ISSN: 0031-6768.  
 PUB. COUNTRY: GERMANY: Germany, Federal Republic of  
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals  
 ENTRY MONTH: 200102  
 ENTRY DATE: Entered STN: 20010322  
 Last Updated on STN: 20010322  
 Entered Medline: 20010201

L22 ANSWER 9 OF 419 MEDLINE on STN

TI Role of potassium channels in catecholamine secretion in the rat adrenal gland.

AB We elucidated the functional contribution of K(+) channels to cholinergic control of catecholamine secretion in the perfused rat adrenal gland. The small-conductance Ca(2+)-activated K(+) (SK(Ca))-channel blocker apamin (10-100 nM) enhanced the transmural electrical stimulation (ES; 1-10 Hz)- and 1, 1-dimethyl-4-phenyl-piperazinium (DMPP; 5-40 microM)-induced increases in norepinephrine (NE) output, whereas it did not affect the epinephrine (Epi) responses. Apamin enhanced the catecholamine responses induced by acetylcholine (6-200 microM) and methacholine (10-300 microM). The putative large-conductance Ca(2+)-activated K(+) channel blocker charybdotoxin (10-100 nM) enhanced the catecholamine responses induced by ES, but not the responses induced by cholinergic agonists. Neither the K(A) channel blocker **mast cell degranulating peptide** (100-1000 nM) nor the K(V) channel blocker margatoxin (10-100 nM) affected the catecholamine responses. These results suggest that SK(Ca) channels play an inhibitory role in adrenal catecholamine secretion mediated by muscarinic receptors and also in the nicotinic receptor-mediated secretion of NE, but not of Epi. Charybdotoxin-sensitive Ca(2+)-activated K(+) channels may control the secretion at the presynaptic site.

ACCESSION NUMBER: 2000411378 MEDLINE  
 DOCUMENT NUMBER: 20398462 PubMed ID: 10938231  
 TITLE: Role of potassium channels in catecholamine secretion in the rat adrenal gland.  
 AUTHOR: Nagayama T; Fukushima Y; Yoshida M; Suzuki-Kusaba M; Hisa H; Kimura T; Satoh S  
 CORPORATE SOURCE: Laboratory of Pharmacology, Graduate School of Pharmaceutical Sciences, Tohoku University, Aobayama,

SOURCE: Sendai, Japan.  
AMERICAN JOURNAL OF PHYSIOLOGY. REGULATORY, INTEGRATIVE AND  
COMPARATIVE PHYSIOLOGY, (2000 Aug) 279 (2) R448-54.  
Journal code: 100901230. ISSN: 0363-6119.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200008  
ENTRY DATE: Entered STN: 20000907  
Last Updated on STN: 20000907  
Entered Medline: 20000831

L22 ANSWER 10 OF 419 MEDLINE on STN  
TI Structure and biological activities of eumenine mastoparan-AF (EMP-AF), a  
new **mast cell degranulating peptide**  
in the venom of the solitary wasp (Anterhynchium flavomarginatum micado).  
AB A new **mast cell degranulating**  
**peptide**, eumenine mastoparan-AF (EMP-AF), was isolated from the  
venom of the solitary wasp Anterhynchium flavomarginatum micado, the most  
common eumenine wasp found in Japan. The structure was analyzed by  
FAB-MS/MS together with Edman degradation, which was corroborated by  
solid-phase synthesis. The sequence of EMP-AF, Ile-Asn-Leu-Leu-Lys-Ile-  
Ala-Lys-Gly-Ile-Ile-Lys-Ser-Leu-NH(2), was similar to that of mastoparan,  
a **mast cell degranulating peptide**  
from a hornet venom; tetradecapeptide with C-terminus amidated and rich in  
hydrophobic and basic amino acids. In fact, EMP-AF exhibited similar  
activity to mastoparan in stimulating degranulation from rat peritoneal  
mast cells and RBL-2H3 cells. It also showed significant hemolytic  
activity in human erythrocytes. Therefore, this is the first example that  
a **mast cell degranulating peptide**  
is found in the solitary wasp venom. Besides the degranulation and  
hemolytic activity, EMP-AF also affects on neuromuscular transmission in  
the lobster walking leg preparation. Three analogs EMP-AF-1 approximately  
3 were synthesized and biologically tested together with EMP-AF, resulting  
in the importance of the C-terminal amide structure for biological  
activities.

ACCESSION NUMBER: 2000407658 MEDLINE  
DOCUMENT NUMBER: 20240153 PubMed ID: 10775751  
TITLE: Structure and biological activities of eumenine  
mastoparan-AF (EMP-AF), a new **mast cell**  
**degranulating peptide** in the venom of the  
solitary wasp (Anterhynchium flavomarginatum micado).  
AUTHOR: Konno K; Hisada M; Naoki H; Itagaki Y; Kawai N; Miwa A;  
Yasuhara T; Morimoto Y; Nakata Y  
CORPORATE SOURCE: Institute of Biosciences of Rio Claro, Sao Paulo State  
University (UNESP), Rio Claro, Brazil.. kk-gon@rc.unesp.br  
SOURCE: TOXICON, (2000 Nov) 38 (11) 1505-15.  
Journal code: 1307333. ISSN: 0041-0101.  
PUB. COUNTRY: ENGLAND: United Kingdom  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200008  
ENTRY DATE: Entered STN: 20000901  
Last Updated on STN: 20000901  
Entered Medline: 20000822

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(FILE 'HOME' ENTERED AT 11:08:04 ON 01 DEC 2003)

FILE 'MEDLINE, USPATFULL, DGENE, EMBASE, WPIDS, BIOSIS, BIOBUSINESS'



ENTERED AT 11:08:30 ON 01 DEC 2003

L1 1 S CONJUGATE AND MASTOCYTE BINDING  
L2 171149 S HYBRID PROTEIN OR CONJUGATE  
L3 21 S IGE AND IGA PROTEASE  
L4 1711 S IGE AND TETANUS  
L5 7 S L2 AND L3  
L6 0 S L4 AND MASTOCYTE INACTIVATION  
L7 0 S L4 AND DEGRANULATION INHIBITION  
L8 1322 S MAST CELL DEGRANULATION AND INHIBITION  
L9 38 S ALLERGY AND TREATMENT  
L10 0 S L9 AND L8  
L11 107 S L8 AND ALLERGIC RESPONSE  
L12 88 S L11 AND IGE  
L13 2 S L12 AND TETANUS TOXIN  
L14 1 S LIGHT CHAIN CLOSTRIDIUM BOTULINUM TOXIN  
L15 0 S LIGHT CHAIN TETANUS TOXIN  
L16 0 S IGA PROTEASE NEISSERIA GONORRHEAE  
L17 1711 S TETANUS AND IGE  
L18 12 S L8 AND L17  
L19 443 S CLOSTRIDIUM BOTULINUM TOXIN  
L20 1 S L19 AND FC FRAGMENT  
L21 2 S L19 AND L8  
L22 419 S MAST CELL DEGRANULATING PEPTIDE  
L23 0 S L9 AND L22

=> s 122 and IgE

L24 19 L22 AND IGE

=> d 124 ti abs ibib tot

L24 ANSWER 1 OF 19 MEDLINE on STN

TI Histamine-releasing activity and binding to the FcepsilonRI alpha human mast cell receptor subunit of **mast cell degranulating peptide** analogues with alanine substitutions.

AB We have investigated the effects on mast cell binding and the histamine-releasing activity of l-alanine substitutions for the five lysine residues and the proline residue in the MCD peptide (1) sequence. All synthesized analogues Ala(2) (2), Ala(6) (3), Ala(11) (4), Ala(12) (5), Ala(17) (6), and Ala(21) (7) showed a loss of histamine release compared to the parent MCD peptide 1. The order of decreased potency was 1 > 6 > 7 > 4 > 2 > 3 > 5. The alanine-substituted analogues showed a 5- to 6-fold decrease in histamine release for analogues 6, 7, and 4 and a 10-fold decrease for analogue 2. A more significant loss was observed in analogue 3 with a 75-fold loss of activity. The greatest loss of activity was observed with alanine substituting for proline in position 12. This analogue 5 showed a 130-fold loss of histamine release compared to the parent peptide 1. The ability of each analogue to interact with the FcepsilonRIalpha subunit of the human mast cell receptor was analyzed by competitive binding of the fluorescent peptide 1 and the alanine analogues using fluorescence polarization. The binding affinities of analogues 4, 6, and 7 for the mast cell receptor were less than the affinity of the native peptide 1. Analogues 2, 3, and 5 showed an increase in binding affinity, with analogue 5 showing the highest increase compared to the native peptide 1. The order of increased affinity was 5 > 3 > 2 > 1 > 4, 6, 7. On the basis of these results, the possibility that analogue 5 inhibits peptide 1-stimulated histamine release was examined. We found that peptide 5 did not inhibit histamine release by peptide 1. The analogues 2, 3, and especially analogue 5 may be useful leads toward study of agents that prevent binding of **IgE** to mast cell receptors.

ACCESSION NUMBER: 2003316290 MEDLINE

DOCUMENT NUMBER: 22710997 PubMed ID: 12825939

TITLE: Histamine-releasing activity and binding to the FcepsilonRI alpha human mast cell receptor subunit of **mast**



**cell degranulating peptide**  
 analogues with alanine substitutions.  
 AUTHOR: Buku A; Mendlowitz M; Condie B A; Price J A  
 CORPORATE SOURCE: Department of Physiology and Biophysics, Mount Sinai School  
 of Medicine, 1 Gustave L Levy Place, Box 1218, New York,  
 New York 10029, USA.. Angeliki.Buku@mssm.edu  
 SOURCE: JOURNAL OF MEDICINAL CHEMISTRY, (2003 Jul 3) 46 (14)  
 3008-12.  
 Journal code: 9716531. ISSN: 0022-2623.  
 PUB. COUNTRY: United States  
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals  
 ENTRY MONTH: 200308  
 ENTRY DATE: Entered STN: 20030709  
 Last Updated on STN: 20030808  
 Entered Medline: 20030807

L24 ANSWER 2 OF 19 MEDLINE on STN  
 TI Inflammatory role of two venom components of yellow jackets (*Vespula  
 vulgaris*): a **mast cell degranulating  
 peptide** mastoparan and phospholipase A1.  
 AB BACKGROUND: Venom sac extract of yellow jackets *Vespula vulgaris* was toxic  
 in mice when injected intraperitoneally but not toxic when injected  
 subcutaneously. Necropsy showed the toxicity to be an inflammatory  
 response. METHODS: Venom peptide and protein fractions were tested to  
 identify the inflammatory components. The active components were tested  
 to establish whether they might function as adjuvant for venom  
 protein-specific antibody response. RESULTS: Venom toxicity required the  
 synergistic action of two venom components, a **mast cell  
 degranulating peptide** mastoparan and phospholipase A1.  
 Both components stimulated prostaglandin E(2) release from murine  
 peritoneal cells and macrophages. Mastoparan showed a weak activity to  
 enhance IgE and IgG1 responses to a yellow jacket venom protein  
 Ves v 5 in BALB/c mice. It was not possible to assess the adjuvant  
 activity of phospholipase A1 because of its suppression of Ves v  
 5-specific response. Melittin, a **mast cell  
 degranulating peptide** from bee venom, was inactive as an  
 adjuvant for Ves v 5-specific response. CONCLUSION: Yellow jacket venom  
 contains two inflammatory components, mastoparan and phospholipase A1.  
 Our findings suggest that mastoparan can function as a weak adjuvant for  
 TH2 cell-associated antibody response.  
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ACCESSION NUMBER: 2003235902 MEDLINE  
 DOCUMENT NUMBER: 22643038 PubMed ID: 12759486  
 TITLE: Inflammatory role of two venom components of yellow jackets  
 (*Vespula vulgaris*): a **mast cell  
 degranulating peptide** mastoparan and  
 phospholipase A1.  
 AUTHOR: King Te Piao; Jim Sui Yee; Wittkowski Knut M  
 CORPORATE SOURCE: The Rockefeller University, New York, NY 10021, USA..  
 kingtp@mail.rockefeller.edu  
 CONTRACT NUMBER: M01-RR00102 (NCRR)  
 SOURCE: INTERNATIONAL ARCHIVES OF ALLERGY AND IMMUNOLOGY, (2003  
 May) 131 (1) 25-32.  
 Journal code: 9211652. ISSN: 1018-2438.  
 PUB. COUNTRY: Switzerland  
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals  
 ENTRY MONTH: 200306  
 ENTRY DATE: Entered STN: 20030522  
 Last Updated on STN: 20030624  
 Entered Medline: 20030623

L24 ANSWER 3 OF 19 MEDLINE on STN

TI **Mast cell degranulating peptide**

binds to RBL-2H3 mast cell receptors and inhibits IgE binding.

AB Fluorescent and biotinylated analogs of mast cell degranulating (MCD) peptide were synthesized and the labels fluorescein isothiocyanate and N-hydroxysuccinimidobiotin were conjugated at position 1 in the MCD peptide sequence. The analogs with these moieties retained histamine-releasing activity as high as that of the parent MCD peptide in rat peritoneal mast cell assays. These labeled analogs were used in rat basophilic leukemia cells (RBL-2H3) to demonstrate by confocal microscopy and flow cytometry the specific binding of MCD peptide to mast cell receptors. Consequently MCD peptide was found to compete with and inhibit the binding of fluorescent IgE on RBL cells as monitored by flow cytometry. Thus MCD peptide may prove to be useful in the study of IgE receptor-bearing cells.

ACCESSION NUMBER: 2002061037 MEDLINE

DOCUMENT NUMBER: 21646709 PubMed ID: 11786182

TITLE: **Mast cell degranulating peptide** binds to RBL-2H3 mast cell receptors and inhibits IgE binding.

AUTHOR: Buku A; Price J A; Mendlowitz M; Masur S

CORPORATE SOURCE: Department of Physiology and Biophysics, Mount Sinai School of Medicine, New York, NY 10029, USA..  
buku@physbio.mssm.edu

CONTRACT NUMBER: EY 09414 (NEI)

SOURCE: PEPTIDES, (2001 Dec) 22 (12) 1993-8.  
Journal code: 8008690. ISSN: 0196-9781.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200203

ENTRY DATE: Entered STN: 20020125

Last Updated on STN: 20020314

Entered Medline: 20020313

L24 ANSWER 4 OF 19 MEDLINE on STN

TI Peptidergic pathway in human skin and rat peritoneal mast cell activation.

AB The common pathway of heterogeneous mast cell activation as mediated by antigens is through the cross-linking of IgE bound to Fc epsilon RI receptors. The peptidergic pathway of mast cell activation, achieved by cationic secretagogues, is restricted to "serosal" mast cells, the experimental models being rat peritoneal and human skin mast cells. Cationic secretagogues include positively charged peptides but also various amines such as compound 48/80 and natural polyamines. An early intracellular event of this pathway is the activation of pertussis toxin-sensitive G proteins. The correlation observed between the ability of basic compounds to trigger mast cell exocytosis and their potency to activate purified G proteins strongly suggests that cationic compounds activate mast cell G proteins via a receptor-independent but membrane-assisted process. In this paper, alternative mechanisms are discussed. The consequence of G protein stimulation is the activation of phospholipase C with an increase in inositol triphosphates. Natural polyamines are relatively poor triggers of mast cells ( $10^{-4}$  to  $10^{-2}$  M). Neuropeptides such as substance P, neuropeptide Y or vasoactive intestinal peptide, peptidic hormones such as kinins, and venoms such as mastoparan and **mast cell degranulating peptide**, are all active in a concentration range from  $10^{-7}$  to  $10^{-4}$  M. The cationic anaphylatoxin C3a also stimulates mast cells at concentrations below precursor complement C3 blood levels. The component C3 of the complement system is one of only a few plasma proteins having activation fragments (i.e. C3a) that can be generated at micromolar levels. The effects of basic secretagogues defines a peptidergic pathway

of mast cell activation, which represents a potentially toxic process considering the tissue effects caused by exogenous basic compounds such as venom peptides and certain amine containing drugs. Peptidergic activation of mast cells may also be a pathophysiological process having an important role in neurogenic inflammation and in diseases involving extensive activation of the blood complement cascade.

ACCESSION NUMBER: 94266602 MEDLINE  
DOCUMENT NUMBER: 94266602 PubMed ID: 7515863  
TITLE: Peptidergic pathway in human skin and rat peritoneal mast cell activation.  
AUTHOR: Mousli M; Hugli T E; Landry Y; Bronner C  
CORPORATE SOURCE: Laboratoire de Neuroimmunopharmacologie, INSERM CUF-9105, Universite Louis Pasteur-Strasbourg I, Illkirch, France.  
SOURCE: IMMUNOPHARMACOLOGY, (1994 Jan-Feb) 27 (1) 1-11. Ref: 69  
Journal code: 7902474. ISSN: 0162-3109.  
PUB. COUNTRY: Netherlands  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
General Review; (REVIEW)  
(REVIEW, ACADEMIC)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 199407  
ENTRY DATE: Entered STN: 19940721  
Last Updated on STN: 20000303  
Entered Medline: 19940712

L24 ANSWER 5 OF 19 MEDLINE on STN

TI Purification of Ascaris suum antigen: its allergenic activity in vitro and in vivo.

AB Crude aqueous extracts of Ascaris suum (CE) have been used widely to study IgE-mediated reactions in various experimental preparations. Because some CE may contain a polypeptide, a **mast cell degranulating peptide** (MCDP), that degranulates mast cells by nonimmunologic mechanisms, various protocols have been used to ensure that the Ascaris preparation used did not contain MCDP. In general, these protocols have assumed MCDP had been without providing proof. Even protocols designed to isolate the major antigenic determinants from CE have usually been designed to evaluate immunogenic characteristics of the purified Ascaris; thus, few systematic comparisons of CE with purified Ascaris exist concerning mast cell degranulation, and few studies have demonstrated that MCDP has been removed during purification. Since Ascaris has proved to be useful in a variety of studies of IgE-mediated reactions, particularly in large animals (dog and sheep), we have developed a protocol to purify CE and MCDP and characterize their physiochemical and immunologic properties. We compared the allergenic activity of our purified Ascaris to that of CE and MCDP in skin and lung of natively sensitized dogs and in unsensitized rat peritoneal mast cells. Our results indicate that MCDP probably contaminates CE by less than 1.0%. However, the biologic activity of MCDP in dog lung appears insignificant and probably contributes little to CE-induced reactions in doses of CE commonly used (less than or equal to 100 mg injected). If a purified Ascaris preparation is essential, our protocol will yield an Ascaris preparation that has potent IgE-mediated effects in dog preparations with insignificant contamination by MCDP.

ACCESSION NUMBER: 86141326 MEDLINE  
DOCUMENT NUMBER: 86141326 PubMed ID: 2419382  
TITLE: Purification of Ascaris suum antigen: its allergenic activity in vitro and in vivo.  
AUTHOR: Greenspon L W; White J; Shields R L; Fugner A; Gold W M  
CONTRACT NUMBER: HL-00535 (NHLBI)  
HL-07159 (NHLBI)  
HL-24136 (NHLBI)  
SOURCE: JOURNAL OF ALLERGY AND CLINICAL IMMUNOLOGY, (1986 Mar) 77

(3) 443-51.

Journal code: 1275002. ISSN: 0091-6749.

PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals  
ENTRY MONTH: 198604  
ENTRY DATE: Entered STN: 19900321  
Last Updated on STN: 19970203  
Entered Medline: 19860415

L24 ANSWER 6 OF 19 MEDLINE on STN

TI A comparison of histamine secretion from peritoneal mast cells of the rat and hamster.

AB Functional mast cells have been obtained by peritoneal lavage of the rat and hamster. Both cell types released histamine on stimulation with appropriate dilutions of anti-rat IgE and anti-hamster serum. The maximum response evoked by each reagent was significantly greater for the hamster cells. The release was non-cytotoxic and was in each case blocked by the corresponding soluble antigen. The rat and hamster cells responded to concanavalin A and the lectin from lentil. Phosphatidylserine (PS) potentiated the release only from the rat cells. In the absence of the lipid, the hamster cells were more reactive. The lectin from wheat germ, in the presence of PS, evoked histamine secretion only from the rat cells. Both populations were refractory to the lectin from soybean and to protein A. Rat peritoneal cells were more responsive to the basic secretagogues compound 48/80 and peptide 401 (the MCD-peptide from bee venom). These differences were less marked in the case of polylysine and polyarginine. The two cell populations responded to the calcium ionophores A23187, ionomycin and chlortetracycline. The hamster cells were significantly more sensitive to the former two liberators but markedly less reactive to chlortetracycline. Adenosine 5'-triphosphate (ATP) and dextran were potent histamine liberators from the rat cells but were totally ineffective against the hamster. Acetylcholine and carbamylcholine had no effect on either cell type. These results are discussed in terms of the functional heterogeneity of mast cells from different sources.

ACCESSION NUMBER: 84204390 MEDLINE  
DOCUMENT NUMBER: 84204390 PubMed ID: 6202354  
TITLE: A comparison of histamine secretion from peritoneal mast cells of the rat and hamster.  
AUTHOR: Leung K B; Pearce F L  
SOURCE: BRITISH JOURNAL OF PHARMACOLOGY, (1984 Apr) 81 (4) 693-701.  
Journal code: 7502536. ISSN: 0007-1188.  
PUB. COUNTRY: ENGLAND: United Kingdom  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 198407  
ENTRY DATE: Entered STN: 19900319  
Last Updated on STN: 19980206  
Entered Medline: 19840718

L24 ANSWER 7 OF 19 MEDLINE on STN

TI [Bee venom allergy (a model of an IgE-mediated immediate-type allergy)].

Die Bienengiftallergie (Modell einer IgE-medierten Soforttypallergie).

ACCESSION NUMBER: 81179063 MEDLINE  
DOCUMENT NUMBER: 81179063 PubMed ID: 7013279  
TITLE: [Bee venom allergy (a model of an IgE-mediated immediate-type allergy)].  
Die Bienengiftallergie (Modell einer IgE-medierten Soforttypallergie).



AUTHOR: Jarisch R  
 SOURCE: WIENER KLINISCHE WOCHENSCHRIFT. SUPPLEMENTUM, (1980) 122  
 3-27. Ref: 175  
 Journal code: 0357046. ISSN: 0300-5178.  
 PUB. COUNTRY: Austria  
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
 General Review; (REVIEW)  
 LANGUAGE: German  
 FILE SEGMENT: Priority Journals  
 ENTRY MONTH: 198106  
 ENTRY DATE: Entered STN: 19900316  
 Last Updated on STN: 19980206  
 Entered Medline: 19810623

L24 ANSWER 8 OF 19 USPATFULL on STN

TI Hybrid protein for inhibiting the degranulation of mastocytes and the use thereof

AB A hybrid protein contains a protein that binds to a receptor of mastocytes and basophils and is endocytosed by them. The protein can be **IgE**; **IgE** fragment; **IgE** Fc fragment; antibody against **IgE** receptor of mastocytes and basophils; fragment of the antibody against the **IgE** receptor of mastocytes and basophils; antibody against mastocyte specific potassium channel; and **mast cell degranulating peptide**.  
 The hybrid protein also contains a protease cleaving proteins of the secretion process of the mastocytes and basophils so as to inhibit the secretion process without killing the mastocytes and basophils. The protease can be light chain Clostridium botulinum toxin; proteolytically active fragment of the light chain of a Clostridium botulinum toxin containing an amino acid sequence His-Xaa-Xaa-Xaa-His-Xaa-Xaa-His wherein Xaa is an amino acid; light chain of the tetanus toxin; proteolytically active fragment of the light chain of the tetanus toxin containing His-Asp-Leu-Ile-His-Val-Leu-His; IgA protease of Neisseria gonorrhoeae; and proteolytic domain of the IgA protease of Neisseria gonorrhoeae.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2003:86306 USPATFULL

TITLE: Hybrid protein for inhibiting the degranulation of mastocytes and the use thereof

INVENTOR(S): Bigalke, Hans, Hannover, GERMANY, FEDERAL REPUBLIC OF  
 Frevert, Jurgen, Berlin, GERMANY, FEDERAL REPUBLIC OF

PATENT ASSIGNEE(S): BioteCon Gesellschaft fur biotechnologische Entwicklung und consulting mbH, Berlin, DE, 10589 (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003059912	A1	20030327
APPLICATION INFO.:	US 2002-64903	A1	20020827 (10)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 2001-700540, filed on 19 Jan 2001, PENDING A 371 of International Ser. No. WO 1999-EP3272, filed on 12 May 1999, UNKNOWN		

	NUMBER	DATE
PRIORITY INFORMATION:	DE 1998-19821285	19980513
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	GUDRUN E. HUCKETT, LONSSTR. 53, WUPPERTAL, 42289	
NUMBER OF CLAIMS:	11	
EXEMPLARY CLAIM:	1	
LINE COUNT:	576	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.



L24 ANSWER 9 OF 19 USPATFULL on STN

TI Stabilized nanoparticle formulations of camptotheca derivatives  
AB Pharmaceutical formulations are provided that increase the systemic bioavailability of camptotheca derivatives; preferably, the camptothecin derivative is 7-ethyl-10-hydroxyl camptothecin, SN-38. The drug is complexed with a stabilizing agent, but is not covalently bound thereto. Anionic or neutral lipids and/or polymers are used as the stabilizing agent, and secondary stabilizing agents and/or other excipients may be incorporated into the formulation as well. Therapeutic methods are also provided, wherein a formulation of the invention is administered to a patient to treat a condition, disorder, or disease that is responsive to camptothecin derivatives. Generally, administration is oral or parenteral.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2003:85861 USPATFULL  
TITLE: Stabilized nanoparticle formulations of camptotheca derivatives  
INVENTOR(S): Unger, Evan C., Tucson, AZ, UNITED STATES  
Romanowski, Marek J., Tucson, AZ, UNITED STATES  
Ramaswami, VaradaRajan, Tucson, AZ, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003059465	A1	20030327
APPLICATION INFO.:	US 2002-165867	A1	20020606 (10)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 2000-703484, filed on 31 Oct 2000, PENDING Continuation-in-part of Ser. No. US 2000-478124, filed on 5 Jan 2000, PENDING Continuation-in-part of Ser. No. US 1998-75477, filed on 11 May 1998, PENDING		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	REED & ASSOCIATES, 800 MENLO AVENUE, SUITE 210, MENLO PARK, CA, 94025		
NUMBER OF CLAIMS:	55		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	2 Drawing Page(s)		
LINE COUNT:	1903		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L24 ANSWER 10 OF 19 USPATFULL on STN

TI Preparation for the application of agents in mini-droplets  
AB The invention relates to a preparation for the application of agents in the form of minuscule droplets of fluid, in particular provided with membrane-like structures consisting of one or several layers of amphiphilic molecules, or an amphiphilic carrier substance, in particular for transporting the agent into and through natural barriers such as skin and similar materials. The preparation contains a concentration of edge active substances which amounts to up to 99 mol-% of the agent concentration which is required for the induction of droplet solubilization. Such preparations are suitable, for example, for the non-invasive applications of antidiabetics, in particular of insulin. The invention, moreover, relates to the methods for the preparation of such formulations.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2000:174129 USPATFULL  
TITLE: Preparation for the application of agents in mini-droplets  
INVENTOR(S): Cevc, Gregor, Heimstetten, Germany, Federal Republic of  
PATENT ASSIGNEE(S): Idea AG, Munich, Germany, Federal Republic of (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6165500		20001226
APPLICATION INFO.:	US 1992-844664		19920408 (7)

	NUMBER	DATE
PRIORITY INFORMATION:	DE 1990-4026834	19900824
	DE 1990-4026833	19900824
	DE 1991-4107153	19910306
	WO 1991-EP1596	19910822
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Kishore, Gollamudi S.	
LEGAL REPRESENTATIVE:	Davidson, Davidson & Kappel, LLC	
NUMBER OF CLAIMS:	35	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	31 Drawing Figure(s); 21 Drawing Page(s)	
LINE COUNT:	4336	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L24 ANSWER 11 OF 19 EMBASE COPYRIGHT 2003 ELSEVIER INC. ALL RIGHTS RESERVED.  
on STN

TI Histamine-releasing activity and binding to the Fc.epsilon.RI.alpha. human mast cell receptor subunit of **mast cell degranulating peptide** analogues with alanine substitutions.

AB We have investigated the effects on mast cell binding and the histamine-releasing activity of L-alanine substitutions for the five lysine residues and the proline residue in the MCD peptide (1) sequence. All synthesized analogues Ala(2) (2), Ala(6) (3), Ala(11) (4), Ala(12) (5), Ala(17) (6), and Ala(21) (7) showed a loss of histamine release compared to the parent MCD peptide 1. The order of decreased potency was 1 > 6 > 7 > 4 > 2 > 3 > 5. The alanine-substituted analogues showed a 5- to 6-fold decrease in histamine release for analogues 6, 7, and 4 and a 10-fold decrease for analogue 2. A more significant loss was observed in analogue 3 with a 75-fold loss of activity. The greatest loss of activity was observed with alanine substituting for proline in position 12. This analogue 5 showed a 130-fold loss of histamine release compared to the parent peptide 1. The ability of each analogue to interact with the Fc.epsilon.RI.alpha. subunit of the human mast cell receptor was analyzed by competitive binding of the fluorescent peptide 1 and the alanine analogues using fluorescence polarization. The binding affinities of analogues 4, 6, and 7 for the mast cell receptor were less than the affinity of the native peptide 1. Analogues 2, 3, and 5 showed an increase in binding affinity, with analogue 5 showing the highest increase compared to the native peptide 1. The order of increased affinity was 5 > 3 > 2 > 1 > 4, 6, 7. On the basis of these results, the possibility that analogue 5 inhibits peptide 1-stimulated histamine release was examined. We found that peptide 5 did not inhibit histamine release by peptide 1. The analogues 2, 3, and especially analogue 5 may be useful leads toward study of agents that prevent binding of IgE to mast cell receptors.

ACCESSION NUMBER: 2003259476 EMBASE  
TITLE: Histamine-releasing activity and binding to the Fc.epsilon.RI.alpha. human mast cell receptor subunit of **mast cell degranulating peptide** analogues with alanine substitutions.  
AUTHOR: Buku A.; Mendlowitz M.; Condie B.A.; Price J.A.  
CORPORATE SOURCE: A. Buku, Dept. of Physiology and Biophysics, Mount Sinai School of Medicine, Box 1218, 1 Gustave L. Levy Place, New York, NY 10029, United States  
SOURCE: Journal of Medicinal Chemistry, (3 Jul 2003) 46/14 (3008-3012).

Refs: 37  
ISSN: 0022-2623 CODEN: JMCMAR  
COUNTRY: United States  
DOCUMENT TYPE: Journal; Article  
FILE SEGMENT: 029 Clinical Biochemistry  
037 Drug Literature Index  
LANGUAGE: English  
SUMMARY LANGUAGE: English

L24 ANSWER 12 OF 19 EMBASE COPYRIGHT 2003 ELSEVIER INC. ALL RIGHTS RESERVED.  
on STN

TI Inflammatory role of two venom components of yellow jackets (*Vespula vulgaris*): A **mast cell degranulating peptide** mastoparan and phospholipase A1.

AB Background: Venom sac extract of yellow jackets *Vespula vulgaris* was toxic in mice when injected intraperitoneally but not toxic when injected subcutaneously. Necropsy showed the toxicity to be an inflammatory response. Methods: Venom peptide and protein fractions were tested to identify the inflammatory components. The active components were tested to establish whether they might function as adjuvant for venom protein-specific antibody response. Results: Venom toxicity required the synergistic action of two venom components, a **mast cell degranulating peptide** mastoparan and phospholipase A1. Both components stimulated prostaglandin E(2) release from murine peritoneal cells and macrophages. Mastoparan showed a weak activity to enhance IgE and IgG1 responses to a yellow jacket venom protein Ves v 5 in BALB/c mice. It was not possible to assess the adjuvant activity of phospholipase A1 because of its suppression of Ves v 5-specific response. Melittin, a **mast cell degranulating peptide** from bee venom, was inactive as an adjuvant for Ves v 5-specific response. Conclusion: Yellow jacket venom contains two inflammatory components, mastoparan and phospholipase A1. Our findings suggest that mastoparan can function as a weak adjuvant for TH2 cell-associated antibody response. Copyright .COPYRGT. 2003 S. Karger AG, Basel.

ACCESSION NUMBER: 2003223194 EMBASE  
TITLE: Inflammatory role of two venom components of yellow jackets (*Vespula vulgaris*): A **mast cell degranulating peptide** mastoparan and phospholipase A1.

AUTHOR: King T.P.; Jim S.Y.; Wittkowski K.M.

CORPORATE SOURCE: Dr. T.P. King, Rockefeller University, 1230 York Avenue, New York, NY 10021, United States.  
kingtp@mail.rockefeller.edu

SOURCE: International Archives of Allergy and Immunology, (2003) 131/1 (25-32).

Refs: 36  
ISSN: 1018-2438 CODEN: IAAIEG

COUNTRY: Switzerland  
DOCUMENT TYPE: Journal; Article  
FILE SEGMENT: 026 Immunology, Serology and Transplantation  
029 Clinical Biochemistry  
052 Toxicology  
LANGUAGE: English  
SUMMARY LANGUAGE: English

L24 ANSWER 13 OF 19 EMBASE COPYRIGHT 2003 ELSEVIER INC. ALL RIGHTS RESERVED.  
on STN

TI Peptidergic pathway in human skin and rat peritoneal mast cell activation.

AB The common pathway of heterogenous mast cell activation as mediated by antigens is through the cross-linking of IgE bound to Fc.εRI receptors. The peptidergic pathway of mast cell activation, achieved by cationic secretagogues, is restricted to 'serosal' mast cells, the experimental models being rat peritoneal and human skin mast cells.

Cationic secretagogues include positively charged peptides but also various amines such as compound 48/80 and natural polyamines. An early intracellular event of this pathway is the activation of pertussis toxin-sensitive G proteins. The correlation observed between the ability of basic compounds to trigger mast cell exocytosis and their potency to activate purified G proteins strongly suggests that cationic compounds activate mast cell G proteins via a receptor-independent but membrane-assisted process. In this paper, alternative mechanisms are discussed. The consequence of G protein stimulation is the activation of phospholipase C with an increase in inositol triphosphates. Natural polyamines are relatively poor triggers of mast cells ( $10^{-4}$  to  $10^{-2}$  M). Neuropeptides such as substance P, neuropeptide Y or vasoactive intestinal peptide, peptidic hormones such as kinins, and venoms such as mastoparan and **mast cell degranulating peptide**, are all active in a concentration range from  $10^{-7}$  to  $10^{-4}$  M. The cationic anaphylatoxin C3a also stimulates mast cells at concentrations below precursor complement C3 blood levels. The component C3 of the complement system is one of only a few plasma proteins having activation fragments (i.e. C3a) that can be generated at micromolar levels. The effects of basic secretagogues defines a peptidergic pathway of mast cell activation, which represents a potentially toxic process considering the tissue effects caused by exogenous basic compounds such as venom peptides and certain amine containing drugs. Peptidergic activation of mast cells may also be a pathophysiological process having an important role in neurogenic inflammation and in diseases involving extensive activation of the blood complement cascade.

ACCESSION NUMBER: 94045163 EMBASE  
DOCUMENT NUMBER: 1994045163  
TITLE: Peptidergic pathway in human skin and rat peritoneal mast cell activation.  
AUTHOR: Mousli M.; Hugli T.E.; Landry Y.; Bronner C.  
CORPORATE SOURCE: Lab. de Neuroimmunopharmacologie, INSERM CJF-9105, Univ. Louis Pasteur-Strasbourg I, B.P. 24,67401 Illkirch Cedex, France  
SOURCE: Immunopharmacology, (1994) 27/1 (1-11).  
ISSN: 0162-3109 CODEN: IMMUDP  
COUNTRY: Netherlands  
DOCUMENT TYPE: Journal; General Review  
FILE SEGMENT: 005 General Pathology and Pathological Anatomy  
013 Dermatology and Venereology  
026 Immunology, Serology and Transplantation  
LANGUAGE: English  
SUMMARY LANGUAGE: English

L24 ANSWER 14 OF 19 EMBASE COPYRIGHT 2003 ELSEVIER INC. ALL RIGHTS RESERVED.  
on STN

TI Purification of *Ascaris suum* antigen: Its allergenic activity in vitro and in vivo.

AB Crude aqueous extracts of *Ascaris suum* (CE) have been used widely to study **IgE**-mediated reactions in various experimental preparations. Because some CE may contain a polypeptide, a **mast cell degranulating peptide** (MCDP), that degranulates mast cells by nonimmunologic mechanisms, various protocols have been used to ensure that the *Ascaris* preparation used did not contain MCPD. In general, these protocols have assumed MCDP had been removed without providing proof. Even protocols designed to isolate the major antigenic determinants from CE have usually been designed to evaluate immunogenic characteristics of the purified *Ascaris*; thus, few systematic comparisons of CE with purified *Ascaris* exist concerning mast cell degranulation, and few studies have demonstrated that MCDP has been removed during purification. Since *Ascaris* has proved to be useful in a variety of studies of **IgE**-mediated reactions, particularly in large animals (dog and sheep), we have developed a protocol to purify CE and MCDP and characterize their physiochemical and immunologic properties. We compared the allergenic



activity of our purified Ascaris to that of CE and MCDP in skin and lung of natively sensitized dogs and in unsensitized rat peritoneal mast cells. Our results indicate that MCDP probably contaminates CE by <1.0%. However, the biologic activity of MCDP in dog lung appears insignificant and probably contributes little to CE-induced reactions in doses of CE commonly used (.1 to req. 100 mg injected). If a purified Ascaris preparation is essential, our protocol will yield an Ascaris preparation that has potent IgE-mediated effects in dog preparations with insignificant contamination by MCDP.

ACCESSION NUMBER: 86124757 EMBASE  
DOCUMENT NUMBER: 1986124757  
TITLE: Purification of Ascaris suum antigen: Its allergenic activity in vitro and in vivo.  
AUTHOR: Greenspon L.W.; White J.; Shields R.L.; et al.  
CORPORATE SOURCE: Cardiovascular Research Institute, University of California, San Francisco, CA 94143, United States  
SOURCE: Journal of Allergy and Clinical Immunology, (1986) 77/3 (443-451).  
CODEN: JACIBY  
COUNTRY: United States  
DOCUMENT TYPE: Journal  
FILE SEGMENT: 013 Dermatology and Venereology  
LANGUAGE: English

L24 ANSWER 15 OF 19 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN  
TI Histamine-releasing activity and binding to the FcepsilonRIalpha human mast cell receptor subunit of **mast cell degranulating peptide** analogues with alanine substitutions.

AB We have investigated the effects on mast cell binding and the histamine-releasing activity of L-alanine substitutions for the five lysine residues and the proline residue in the MCD peptide (1) sequence. All synthesized analogues Ala2 (2), Ala6 (3), Ala11 (4), Ala12 (5), Ala17 (6), and Ala21 (7) showed a loss of histamine release compared to the parent MCD peptide 1. The order of decreased potency was 1>6>7>4>2>3>5. The alanine-substituted analogues showed a 5- to 6-fold decrease in histamine release for analogues 6, 7, and 4 and a 10-fold decrease for analogue 2. A more significant loss was observed in analogue 3 with a 75-fold loss of activity. The greatest loss of activity was observed with alanine substituting for proline in position 12. This analogue 5 showed a 130-fold loss of histamine release compared to the parent peptide 1. The ability of each analogue to interact with the FcepsilonRIalpha subunit of the human mast cell receptor was analyzed by competitive binding of the fluorescent peptide 1 and the alanine analogues using fluorescence polarization. The binding affinities of analogues 4, 6, and 7 for the mast cell receptor were less than the affinity of the native peptide 1. Analogues 2, 3, and 5 showed an increase in binding affinity, with analogue 5 showing the highest increase compared to the native peptide 1. The order of increased affinity was 5>3>2>1>4, 6, 7. On the basis of these results, the possibility that analogue 5 inhibits peptide 1-stimulated histamine release was examined. We found that peptide 5 did not inhibit histamine release by peptide 1. The analogues 2, 3, and especially analogue 5 may be useful leads toward study of agents that prevent binding of IgE to mast cell receptors.

ACCESSION NUMBER: 2003:438594 BIOSIS  
DOCUMENT NUMBER: PREV200300438594  
TITLE: Histamine-releasing activity and binding to the FcepsilonRIalpha human mast cell receptor subunit of **mast cell degranulating peptide** analogues with alanine substitutions.  
AUTHOR(S): Buku, A. [Reprint Author]; Mendlowitz, M.; Condie, B. A.; Price, J. A.  
CORPORATE SOURCE: Department of Physiology and Biophysics, Mount Sinai School of Medicine, 1 Gustave L. Levy Place, Box 1218, New York,



NY, 10029, USA  
Angeliki.Buku@mssm.edu  
SOURCE: Journal of Medicinal Chemistry, (July 3 2003) Vol. 46, No. 14, pp. 3008-3012. print.  
ISSN: 0022-2623 (ISSN print).  
DOCUMENT TYPE: Article  
LANGUAGE: English  
ENTRY DATE: Entered STN: 24 Sep 2003  
Last Updated on STN: 24 Sep 2003

L24 ANSWER 16 OF 19 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN  
TI Inflammatory role of two venom components of yellow jackets (*Vespula vulgaris*): A **mast cell degranulating peptide** mastoparan and phospholipase A1.

AB Background: Venom sac extract of yellow jackets *Vespula vulgaris* was toxic in mice when injected intraperitoneally but not toxic when injected subcutaneously. Necropsy showed the toxicity to be an inflammatory response. Methods: Venom peptide and protein fractions were tested to identify the inflammatory components. The active components were tested to establish whether they might function as adjuvant for venom protein-specific antibody response. Results: Venom toxicity required the synergistic action of two venom components, a **mast cell degranulating peptide** mastoparan and phospholipase A1. Both components stimulated prostaglandin E2 release from murine peritoneal cells and macrophages. Mastoparan showed a weak activity to enhance **IgE** and IgG1 responses to a yellow jacket venom protein Ves v 5 in BALB/c mice. It was not possible to assess the adjuvant activity of phospholipase A1 because of its suppression of Ves v 5-specific response. Melittin, a **mast cell degranulating peptide** from bee venom, was inactive as an adjuvant for Ves v 5-specific response. Conclusion: Yellow jacket venom contains two inflammatory components, mastoparan and phospholipase A1. Our findings suggest that mastoparan can function as a weak adjuvant for TH2 cell-associated antibody response.

ACCESSION NUMBER: 2003:331578 BIOSIS  
DOCUMENT NUMBER: PREV200300331578  
TITLE: Inflammatory role of two venom components of yellow jackets (*Vespula vulgaris*): A **mast cell degranulating peptide** mastoparan and phospholipase A1.  
AUTHOR(S): King, Te Piao [Reprint Author]; Jim, Sui Yee; Wittkowski, Knut M.  
CORPORATE SOURCE: The Rockefeller University, 1230 York Avenue, New York, NY, 10021, USA  
kingtp@mail.rockefeller.edu  
SOURCE: International Archives of Allergy and Immunology, (May 2003) Vol. 131, No. 1, pp. 25-32. print.  
CODEN: IAAIEG. ISSN: 1018-2438.  
DOCUMENT TYPE: Article  
LANGUAGE: English  
ENTRY DATE: Entered STN: 16 Jul 2003  
Last Updated on STN: 16 Jul 2003

L24 ANSWER 17 OF 19 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN  
TI **Mast cell degranulating peptide** binds to RBL-2H3 mast cell receptors and inhibits **IgE** binding.  
AB Fluorescent and biotinylated analogs of mast cell degranulating (MCD) peptide were synthesized and the labels fluorescein isothiocyanate and N-hydroxysuccinimidobiotin were conjugated at position 1 in the MCD peptide sequence. The analogs with these moieties retained histamine-releasing activity as high as that of the parent MCD peptide in rat peritoneal mast cell assays. These labeled analogs were used in rat basophilic leukemia cells (RBL-2H3) to demonstrate by confocal microscopy and flow cytometry the specific binding of MCD peptide to mast cell

receptors. Consequently MCD peptide was found to compete with and inhibit the binding of fluorescent **IgE** on RBL cells as monitored by flow cytometry. Thus MCD peptide may prove to be useful in the study of **IgE** receptor-bearing cells.

ACCESSION NUMBER: 2002:160672 BIOSIS  
DOCUMENT NUMBER: PREV200200160672  
TITLE: **Mast cell degranulating peptide** binds to RBL-2H3 mast cell receptors and inhibits **IgE** binding.  
AUTHOR(S): Buku, Angeliki [Reprint author]; Price, Joseph A.; Mendlowitz, Milton; Masur, Sandra  
CORPORATE SOURCE: Department of Physiology and Biophysics, Mount Sinai School of Medicine, New York, NY, 10029, USA  
buku@physbio.mssm.edu  
SOURCE: Peptides (New York), (December, 2001) Vol. 22, No. 12, pp. 1993-1998. print.  
CODEN: PPTDD5. ISSN: 0196-9781.  
DOCUMENT TYPE: Article  
LANGUAGE: English  
ENTRY DATE: Entered STN: 21 Feb 2002  
Last Updated on STN: 26 Feb 2002

L24 ANSWER 18 OF 19 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN  
TI Peptidergic pathway in human skin and rat peritoneal mast cell activation.  
AB The common pathway of heterogenous mast cell activation as mediated by antigens is through the cross-linking of **IgE** bound to Fc-epsilon-RI receptors. The peptidergic pathway of mast cell activation, achieved by cationic secretagogues, is restricted to "serosal" mast cells, the experimental models being rat peritoneal and human skin mast cells. Cationic secretagogues include positively charged peptides but also various amines such as compound 48/80 and natural polyamines. An early intracellular event of this pathway is the activation of pertussis toxin-sensitive G proteins. The correlation observed between the ability of basic compounds to trigger mast cell exocytosis and their potency to activate purified G proteins strongly suggests that cationic compounds activate mast cell G proteins via a receptor-independent but membrane-assisted process. In this paper, alternative mechanisms are discussed. The consequence of G protein stimulation is the activation of phospholipase C with an increase in inositol triphosphates. Natural polyamines are relatively poor triggers of mast cells ( $10^{-4}$  to  $10^{-2}$  M). Neuropeptides such as substance P, neuropeptide Y or vasoactive intestinal peptide, peptidic hormones such as kinins, and venoms such as mastoparan and **mast cell degranulating peptide**, are all active in a concentration range from  $10^{-7}$  to  $10^{-4}$  M. The cationic anaphylatoxin C3a also stimulates mast cells at concentrations below precursor complement C3 blood levels. The component C3 of the complement system is one of only a few plasma proteins having activation fragments (i.e. C3a) that can be generated at micromolar levels. The effects of basic secretagogues defines a peptidergic pathway of mast cell activation, which represents a potentially toxic process considering the tissue effects caused by exogenous basic compounds such as venom peptides and certain amine containing drugs. Peptidergic activation of mast cells may also be a pathophysiological process having an important role in neurogenic inflammation and in diseases involving extensive activation of the blood complement cascade.

ACCESSION NUMBER: 1994:154344 BIOSIS  
DOCUMENT NUMBER: PREV199497167344  
TITLE: Peptidergic pathway in human skin and rat peritoneal mast cell activation.  
AUTHOR(S): Mousli, M. [Reprint author]; Hugli, T. E.; Landry, Y.; Bronner, C.  
CORPORATE SOURCE: Lab. de Neuroimmunopharmacologie, INSERM CJF-9105, Universite Louis Pasteur-Strasbourg I, B.P. 24, 67401 Illkirch Cedex, France

SOURCE: Immunopharmacology, (1994) Vol. 27, No. 1, pp. 1-11.  
CODEN: IMMUDP. ISSN: 0162-3109.  
DOCUMENT TYPE: Article  
General Review; (Literature Review)  
LANGUAGE: English  
ENTRY DATE: Entered STN: 8 Apr 1994  
Last Updated on STN: 10 Apr 1994

L24 ANSWER 19 OF 19 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN  
TI PURIFICATION OF ASCARIS-SUUM ANTIGEN ITS ALLERGENIC ACTIVITY IN-VITRO AND  
IN-VIVO.

AB Crude aqueous extracts of *Ascaris suum* (CE) have been used widely to study  
**IgE**-mediated reactions in various experimental preparations.  
Because some CE may contain a polypeptide, a **mast cell  
degranulating peptide** (MCDP), that degranulates mast  
cells by nonimmunologic mechanisms, various protocols have been used to  
ensure that the *Ascaris* preparation used did not contain MCDP. In  
general, these protocols have assumed MCDP had been removed without  
providing proof. Even protocols designed to isolate the major antigenic  
determinants from CE have usually been designed to evaluate immunogenic  
characteristics of the purified *Ascaris*; thus, few systematic comparisons  
of CE with purified *Ascaris* exist concerning mass cell degranulation, and  
few studies have demonstrated that MCDP has been removed during  
purification. Since *Ascaris* has proved to be useful in a variety of  
studies of **IgE**-mediated reactions, particularly in large animals  
(dog and sheep), we have developed a protocol to purify CE and MCDP and  
characterize their physiochemical and immunologic properties. We compared  
the allergenic activity of our purified *Ascaris* to that of CE and MCDP in  
skin and lung of natively sensitized dogs and in unsensitized rat  
peritoneal mast cells. Our results indicate that MCDP probably  
contaminates CE by < 1.0%. However, the biological activity of MCDP in  
dog lung appears insignificant and probably contributes little to  
CE-induced reactions in doses of CE commonly used (.1 to req. 100 mg  
injected). If a purified *Ascaris* preparation is essential, our protocol  
will yield an *Ascaris* preparation that has potent **IgE**-mediated  
effects in dog preparations with insignificant contamination by MCDP.

ACCESSION NUMBER: 1986:235748 BIOSIS  
DOCUMENT NUMBER: PREV198682000252; BA82:252  
TITLE: PURIFICATION OF ASCARIS-SUUM ANTIGEN ITS ALLERGENIC  
ACTIVITY IN-VITRO AND IN-VIVO.  
AUTHOR(S): GREENSPON L W [Reprint author]; WHITE J; SHIELDS R L;  
FUEGNER A; GOLD W M  
CORPORATE SOURCE: CARDIOVASCULAR RESEARCH INSTITUTE, 1327-M, UNIVERSITY OF  
CALIFORNIA, SAN FRANCISCO, SAN FRANCISCO, CALIF 94143, USA  
SOURCE: Journal of Allergy and Clinical Immunology, (1986) Vol. 77,  
No. 3, pp. 443-451.  
CODEN: JACIBY. ISSN: 0091-6749.  
DOCUMENT TYPE: Article  
FILE SEGMENT: BA  
LANGUAGE: ENGLISH  
ENTRY DATE: Entered STN: 7 Jun 1986  
Last Updated on STN: 7 Jun 1986

=> d his

(FILE 'HOME' ENTERED AT 11:08:04 ON 01 DEC 2003)

FILE 'MEDLINE, USPATFULL, DGENE, EMBASE, WPIDS, BIOSIS, BIOBUSINESS'  
ENTERED AT 11:08:30 ON 01 DEC 2003

L1 1 S CONJUGATE AND MASTOCYTE BINDING  
L2 171149 S HYBRID PROTEIN OR CONJUGATE  
L3 21 S IGE AND IGA PROTEASE  
L4 1711 S IGE AND TETANUS

L5 7 S L2 AND L3  
 L6 0 S L4 AND MASTOCYTE INACTIVATION  
 L7 0 S L4 AND DEGRANULATION INHIBITION  
 L8 1322 S MAST CELL DEGRANULATION AND INHIBITION  
 L9 38 S ALLERGY AND TREATMENT  
 L10 0 S L9 AND L8  
 L11 107 S L8 AND ALLERGIC RESPONSE  
 L12 88 S L11 AND IGE  
 L13 2 S L12 AND TETANUS TOXIN  
 L14 1 S LIGHT CHAIN CLOSTRIDIUM BOTULINUM TOXIN  
 L15 0 S LIGHT CHAIN TETANUS TOXIN  
 L16 0 S IGA PROTEASE NEISSERIA GONORRHEAE  
 L17 1711 S TETANUS AND IGE  
 L18 12 S L8 AND L17  
 L19 443 S CLOSTRIDIUM BOTULINUM TOXIN  
 L20 1 S L19 AND FC FRAGMENT  
 L21 2 S L19 AND L8  
 L22 419 S MAST CELL DEGRANULATING PEPTIDE  
 L23 0 S L9 AND L22  
 L24 19 S L22 AND IGE

=> s l22 and l19

L25 1 L22 AND L19

=> d l25 ti abs ibib tot

L25 ANSWER 1 OF 1 USPATFULL on STN

TI Hybrid protein for inhibiting the degranulation of mastocytes and the use thereof

AB A hybrid protein contains a protein that binds to a receptor of mastocytes and basophils and is endocyted by them. The protein can be IgE; IgE fragment; IgE Fc fragment; antibody against IgE receptor of mastocytes and basophils; fragment of the antibody against the IgE receptor of mastocytes and basophils; antibody against mastocyte specific potassium channel; and **mast cell degranulating peptide**. The hybrid protein also contains a protease cleaving proteins of the secretion process of the mastocytes and basophils so as to inhibit the secretion process without killing the mastocytes and basophils. The protease can be light chain **Clostridium botulinum toxin**; proteolytically active fragment of the light chain of a **Clostridium botulinum toxin** containing an amino acid sequence His-Xaa-Xaa-Xaa-His-Xaa-Xaa-His wherein Xaa is an amino acid; light chain of the tetanus toxin; proteolytically active fragment of the light chain of the tetanus toxin containing His-Asp-Leu-Ile-His-Val-Leu-His; IgA protease of Neisseria gonorrhoeae; and proteolytic domain of the IgA protease of Neisseria gonorrhoeae.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2003:86306 USPATFULL

TITLE: Hybrid protein for inhibiting the degranulation of mastocytes and the use thereof

INVENTOR(S): Bigalke, Hans, Hannover, GERMANY, FEDERAL REPUBLIC OF Frevert, Jurgen, Berlin, GERMANY, FEDERAL REPUBLIC OF

PATENT ASSIGNEE(S): BioteCon Gesellschaft fur biotechnologische Entwicklung und consulting mbH, Berlin, DE, 10589 (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003059912	A1	20030327
APPLICATION INFO.:	US 2002-64903	A1	20020827 (10)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 2001-700540, filed on 19 Jan 2001, PENDING A 371 of International Ser. No.		

	NUMBER	DATE
PRIORITY INFORMATION:	DE 1998-19821285	19980513
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	GUDRUN E. HUCKETT, LONSSTR. 53, WUPPERTAL, 42289	
NUMBER OF CLAIMS:	11	
EXEMPLARY CLAIM:	1	
LINE COUNT:	576	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

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(FILE 'HOME' ENTERED AT 11:08:04 ON 01 DEC 2003)

FILE 'MEDLINE, USPATFULL, DGENE, EMBASE, WPIDS, BIOSIS, BIOBUSINESS'  
ENTERED AT 11:08:30 ON 01 DEC 2003

L1	1 S CONJUGATE AND MASTOCYTE BINDING
L2	171149 S HYBRID PROTEIN OR CONJUGATE
L3	21 S IGE AND IGA PROTEASE
L4	1711 S IGE AND TETANUS
L5	7 S L2 AND L3
L6	0 S L4 AND MASTOCYTE INACTIVATION
L7	0 S L4 AND DEGRANULATION INHIBITION
L8	1322 S MAST CELL DEGRANULATION AND INHIBITION
L9	38 S ALLERGY AND TREATMENT
L10	0 S L9 AND L8
L11	107 S L8 AND ALLERGIC RESPONSE
L12	88 S L11 AND IGE
L13	2 S L12 AND TETANUS TOXIN
L14	1 S LIGHT CHAIN CLOSTRIDIUM BOTULINUM TOXIN
L15	0 S LIGHT CHAIN TETANUS TOXIN
L16	0 S IGA PROTEASE NEISSERIA GONORRHEAE
L17	1711 S TETANUS AND IGE
L18	12 S L8 AND L17
L19	443 S CLOSTRIDIUM BOTULINUM TOXIN
L20	1 S L19 AND FC FRAGMENT
L21	2 S L19 AND L8
L22	419 S MAST CELL DEGRANULATING PEPTIDE
L23	0 S L9 AND L22
L24	19 S L22 AND IGE
L25	1 S L22 AND L19

=> s tetanus toxin

L26 8195 TETANUS TOXIN

=> s l26 and l22

L27 4 L26 AND L22

=> d l27 ti abs ibib tot

L27 ANSWER 1 OF 4 MEDLINE on STN

TI Neurotoxicity of apamin and MCD peptide upon central application.

AB Besides apamin, the structurally related MCD peptide (**mast cell degranulating peptide**; peptide 401) is another centrally acting peptide from bee venom. In contrast to apamin, it is hardly neurotoxic upon intravenous injection in mice. Following intraventricular injection, as little as 0.3 microgram/animal produce convulsions and respiratory arrest in mice. The clinical picture differs from that elicited by apamin, and apamin is about 10 times more potent than MCD peptide when given intraventricularly. Apamin and MCD peptide



injected into the spinal cord of rats in nanogram amounts, produce circumscribed hyperexcitation lasting more than one day, however with complete recovery following sublethal doses. Local apamin poisoning differs from local tetanus (elicited by the same way) by its faster time course.

ACCESSION NUMBER: 78071874 MEDLINE  
DOCUMENT NUMBER: 78071874 PubMed ID: 593441  
TITLE: Neurotoxicity of apamin and MCD peptide upon central application.  
AUTHOR: Habermann E  
SOURCE: NAUNYN-SCHMIEDEBERGS ARCHIVES OF PHARMACOLOGY, (1977 Nov 10) 300 (2) 189-91.  
Journal code: 0326264. ISSN: 0028-1298.  
PUB. COUNTRY: GERMANY, WEST: Germany, Federal Republic of  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 197802  
ENTRY DATE: Entered STN: 19900314  
Last Updated on STN: 19970203  
Entered Medline: 19780218

L27 ANSWER 2 OF 4 USPATFULL on STN

TI Hybrid protein for inhibiting the degranulation of mastocytes and the use thereof  
AB A hybrid protein contains a protein that binds to a receptor of mastocytes and basophils and is endocytosed by them. The protein can be IgE; IgE fragment; IgE Fc fragment; antibody against IgE receptor of mastocytes and basophils; fragment of the antibody against the IgE receptor of mastocytes and basophils; antibody against mastocyte specific potassium channel; and **mast cell degranulating peptide**. The hybrid protein also contains a protease cleaving proteins of the secretion process of the mastocytes and basophils so as to inhibit the secretion process without killing the mastocytes and basophils. The protease can be light chain Clostridium botulinum toxin; proteolytically active fragment of the light chain of a Clostridium botulinum toxin containing an amino acid sequence His-Xaa-Xaa-Xaa-His-Xaa-Xaa-His wherein Xaa is an amino acid; light chain of the **tetanus toxin**; proteolytically active fragment of the light chain of the **tetanus toxin** containing His-Asp-Leu-Ile-His-Val-Leu-His; IgA protease of Neisseria gonorrhoeae; and proteolytic domain of the IgA protease of Neisseria gonorrhoeae.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

ACCESSION NUMBER: 2003:86306 USPATFULL  
TITLE: Hybrid protein for inhibiting the degranulation of mastocytes and the use thereof  
INVENTOR(S): Bigalke, Hans, Hannover, GERMANY, FEDERAL REPUBLIC OF Frevert, Jurgen, Berlin, GERMANY, FEDERAL REPUBLIC OF  
PATENT ASSIGNEE(S): BioteCon Gesellschaft fur biotechnologische Entwicklung und consulting mbH, Berlin, DE, 10589 (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003059912	A1	20030327
APPLICATION INFO.:	US 2002-64903	A1	20020827 (10)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 2001-700540, filed on 19 Jan 2001, PENDING A 371 of International Ser. No. WO 1999-EP3272, filed on 12 May 1999, UNKNOWN		

NUMBER	DATE
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PRIORITY INFORMATION: DE 1998-19821285 19980513  
DOCUMENT TYPE: Utility  
FILE SEGMENT: APPLICATION  
LEGAL REPRESENTATIVE: GUDRUN E. HUCKETT, LONSSTR. 53, WUPPERTAL, 42289  
NUMBER OF CLAIMS: 11  
EXEMPLARY CLAIM: 1  
LINE COUNT: 576  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L27 ANSWER 3 OF 4 EMBASE COPYRIGHT 2003 ELSEVIER INC. ALL RIGHTS RESERVED.  
on STN

TI Effects of ion channel toxins and specific neurotoxins on the cyclic nucleotide content of cerebellar slices, primary brain cultures and neural cell lines.

AB cAMP and cGMP were measured in mouse cerebellar slices, neural cell lines and primary nerve cell cultures from rats after treatment with different neurotoxins and high potassium. Sea anemone toxin II (ATX II), which is known to keep the activated sodium channels open, raised the cGMP content of mouse cerebellar slices up to 35-fold and doubled their cAMP content.

**Mast-cell-degranulating peptide**

(MCD-peptide) from bee venom increased cGMP levels up to 15-fold. The effects of both toxins on the cyclic nucleotide content were mimicked by depolarizing agents, like high potassium and veratridine. Primary nerve cell cultures (4 weeks old) responded to ATX II and high potassium with an increase of both cGMP and cAMP, however to a smaller extent as compared with slices. Excitable structures appear to be relevant, because younger cultures (2 weeks and less) and several neural cell lines did not respond to ATX II. Specific neurotoxins like **tetanus toxin**, botulinum A toxin and apamin from bee venom had no effect on the cyclic nucleotide content of cerebellar slices and of primary nerve cell cultures. In cerebellar slices the potassium-stimulated increase of cAMP and cGMP was not affected by previous exposure of the slices to **tetanus toxin** or apamin. We conclude that opening of sodium channels in excitable membranes generally raises the cyclic nucleotide content whereas the mode of action of specific neurotoxins is not reflected by changes in the overall content of cyclic nucleotides.

ACCESSION NUMBER: 80039979 EMBASE

DOCUMENT NUMBER: 1980039979

TITLE: Effects of ion channel toxins and specific neurotoxins on the cyclic nucleotide content of cerebellar slices, primary brain cultures and neural cell lines.

AUTHOR: Ahnert G.; Glossmann H.; Habermann E.

CORPORATE SOURCE: Pharmakol. Inst., Justus Liebig-Univ. Giessen, D-6300 Lahn-Giessen 1, Germany

SOURCE: Naunyn-Schmiedeberg's Archives of Pharmacology, (1979) 307/2 (151-157).

CODEN: NSAPCC

COUNTRY: Germany

DOCUMENT TYPE: Journal

FILE SEGMENT: 037 Drug Literature Index  
030 Pharmacology  
008 Neurology and Neurosurgery

LANGUAGE: English

L27 ANSWER 4 OF 4 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN

TI EFFECTS OF ION CHANNEL TOXINS AND SPECIFIC NEURO TOXINS ON THE CYCLIC NUCLEOTIDE CONTENT OF CEREBELLAR SLICES PRIMARY BRAIN CULTURES AND NEURAL CELL LINES.

AB c[cyclic]AMP and cGMP were measured in mouse cerebellar slices, neural cell lines and primary nerve cell cultures from rats after treatment with different neurotoxins and high K. The lines used were mouse C6 glioma, mouse 108CC15 neuroblastoma .times. rat glioma hybrid and mouse Neuro 2a neuroblastoma cells. Sea anemone toxin II (ATX II) which keeps the activated Na channels open raised the cGMP content of mouse cerebellar

slices up to 35-fold and doubled their cAMP content. **Mast cell degranulating peptide** (MCD-peptide) from bee venom increased cGMP levels up to 15-fold. The effects of both toxins on the cyclic nucleotide content were mimicked by depolarizing agents, i.e., high K and veratridine. Primary nerve cell cultures (4 wk old) responded to ATX II and high K with an increase of both cGMP and cAMP but to a smaller extent as compared with slices. Excitable structures appear to be relevant because younger cultures (2 wk and less) and several neural cell lines did not respond to ATX II. Specific neurotoxins like **tetanus toxin**, botulinum A toxin and apamin from bee venom had no effect on the cyclic nucleotide content of cerebellar slices and of primary nerve cell cultures. In cerebellar slices the K-stimulated increase of cAMP and cGMP was not affected by previous exposure of the slices to **tetanus toxin** or apamin. Apparently opening of Na channels in excitable membranes generally raises the cyclic nucleotide content but the mode of action of specific neurotoxins is not reflected by changes in the overall content of cyclic nucleotide.

ACCESSION NUMBER: 1980:131595 BIOSIS  
DOCUMENT NUMBER: PREV198069006591; BA69:6591  
TITLE: EFFECTS OF ION CHANNEL TOXINS AND SPECIFIC NEURO TOXINS ON THE CYCLIC NUCLEOTIDE CONTENT OF CEREBELLAR SLICES PRIMARY BRAIN CULTURES AND NEURAL CELL LINES.  
AUTHOR(S): AHNERT G [Reprint author]; GLOSSMANN H; HABERMANN E  
CORPORATE SOURCE: PHARMAKOL INST, JUSTUS LIEBIG-UNIV GIESSEN, FRANKFURTERSTR 107, D-6300 LAHN-GIESSEN 1, W GER  
SOURCE: Naunyn-Schmiedeberg's Archives of Pharmacology, (1979) Vol. 307, No. 2, pp. 151-158.  
CODEN: NSAPCC. ISSN: 0028-1298.  
DOCUMENT TYPE: Article  
FILE SEGMENT: BA  
LANGUAGE: ENGLISH

=> d his

(FILE 'HOME' ENTERED AT 11:08:04 ON 01 DEC 2003)

FILE 'MEDLINE, USPATFULL, DGENE, EMBASE, WPIDS, BIOSIS, BIOBUSINESS'  
ENTERED AT 11:08:30 ON 01 DEC 2003

L1	1 S	CONJUGATE AND MASTOCYTE BINDING
L2	171149 S	HYBRID PROTEIN OR CONJUGATE
L3	21 S	IGE AND IGA PROTEASE
L4	1711 S	IGE AND TETANUS
L5	7 S	L2 AND L3
L6	0 S	L4 AND MASTOCYTE INACTIVATION
L7	0 S	L4 AND DEGRANULATION INHIBITION
L8	1322 S	MAST CELL DEGRANULATION AND INHIBITION
L9	38 S	ALLERGY AND TREATMENT
L10	0 S	L9 AND L8
L11	107 S	L8 AND ALLERGIC RESPONSE
L12	88 S	L11 AND IGE
L13	2 S	L12 AND TETANUS TOXIN
L14	1 S	LIGHT CHAIN CLOSTRIDIUM BOTULINUM TOXIN
L15	0 S	LIGHT CHAIN TETANUS TOXIN
L16	0 S	IGA PROTEASE NEISSERIA GONORRHEAE
L17	1711 S	TETANUS AND IGE
L18	12 S	L8 AND L17
L19	443 S	CLOSTRIDIUM BOTULINUM TOXIN
L20	1 S	L19 AND FC FRAGMENT
L21	2 S	L19 AND L8
L22	419 S	MAST CELL DEGRANULATING PEPTIDE
L23	0 S	L9 AND L22
L24	19 S	L22 AND IGE
L25	1 S	L22 AND L19

L26 8195 S TETANUS TOXIN  
L27 4 S L26 AND L22

=> s 18 and 122

L28 2 L8 AND L22

=> d 128 ti abs ibib tot

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on STN

TI **Inhibition** of nociceptin on sensory neuropeptide release and  
mast cell-mediated plasma extravasation in rats.

AB Nociceptin (20 .mu.g/kg i.p.) strongly inhibited cutaneous Evans blue  
accumulation in the chronically denervated hindpaw of the rat in response  
to **mast cell degranulating peptide**  
(MCDP, 0.25 .mu.g in 100 .mu.l) but it had no and marginal effect on  
plasma extravasation induced by 5-hydroxytryptamine (5-HT, 0.5 .mu.g in  
100 .mu.l) and histamine (0.1 .mu.g in 100 .mu.l), respectively. Release  
of sensory neuropeptides such as substance P, calcitonin gene-related  
peptide (CGRP) and somatostatin from the rat isolated trachea in response  
to capsaicin (10<sup>-8</sup> M) or bradykinin (10<sup>-7</sup> M) were also attenuated by  
nociceptin (100 and 300 nM). It is concluded that chemically induced  
discharge of mediators from mast cells and from capsaicin-sensitive  
afferent nerve terminals are both inhibited by nociceptin that  
participates in the anti-inflammatory effect of the peptide.

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TITLE: **Inhibition** of nociceptin on sensory neuropeptide  
release and mast cell-mediated plasma extravasation in  
rats.

AUTHOR: Nemeth J.; Helyes Z.; Oroszi G.; Than M.; Pinter E.;  
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TI Nitric oxide inhibits numerous features of mast cell-induced inflammation.

AB Background: We previously reported that **mast cell**  
**degranulation** causes histamine and P-selectin dependent leukocyte  
rolling and platelet-activating factor (PAF)- and CD18-associated  
leukocyte adhesion, whereas others have reported serotonin-induced edema  
formation. The purpose of the present study was to determine whether  
nitric oxide (NO) could inhibit the mast cell- induced multistep  
recruitment of leukocytes and the associated microvascular dysfunction in  
single inflamed venules. Methods and Results: Intravital fluorescence  
microscopy was used to demonstrate increased leukocyte rolling and  
adhesion and increased albumin extravasation in single 25- to 40-.mu.m  
venules that were treated with the mast cell-degranulating agent compound  
48/80 (CMP 48/80). The mast cell-induced histamine-dependent rolling and  
PAF- dependent adhesion were completely inhibited by the addition of the  
NO donor spermine NO. However, spermine NO did not directly inhibit  
histamine-induced leukocyte rolling and only partly affected PAF-induced



leukocyte adhesion. Compound 48/80- activated mast cells evoked a significant increase in PAF- dependent neutrophil adhesion in vitro. Spermine-NO prevented the mast cell- dependent neutrophil adhesion but failed to affect direct adhesion with PAF. The mast cell-induced albumin leakage was also inhibited by the NO donor. Conclusions: Taken together, these results suggest that exogenous NO can modulate leukocyte recruitment and microvascular permeability alterations elicited by mast cell activation and raises the possibility that the use of NO donors may be a reasonable therapeutic approach to reducing mast cell- dependent inflammation.

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AUTHOR: Gaboury J.P.; Niu X.-F.; Kubes P.  
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